

ZVORYKIN, V.N.

Typological characteristics of the higher nervous activity of dogs  
during changes in the barometric pressure. Funk. org. v usl. inn.  
gaz. sredi 3:156-162 '64. (MIRA 17:11)

ZVORYKIN, V.N.; KORESHKOV, A.A.; MAL'KOV, P.A.

Reflex influences from the mechanoreceptors of the gastrointestinal tract on breathing and the cardiovascular system during barometric pressure drops. Funk. org. v usl. izm. gaz. sredy 3:242-251 '64.

(MIRA 17:11)

Certain peculiarities of proximal subcortex of the acoustic analyzer;  
comparative anatomical study in mammals. Arkh. anat., Moskva 29 no.2:  
10-17 Mar-Apr 1952. (GIML 23:2)

1. Of the Scientific-Research Institute of the Brain (Director ---  
S. A. Sarkosov, Active Member of the Academy of Medical Sciences USSR),  
Ministry of Public Health USSR.

1. ZVORZIN, V. P.
2. USSR (600)
4. Embryology, Human
7. Problem of shifting of the corpus geniculatum mediale in the course of its development, Arkhiv. anat. gist. 1 embr., 29, No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

## Nervous System

A. I. Tyshetskiy and the discovery of the excitability of the central nervous system.  
Zhur. nevr. i psikh. 52, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, ~~1953~~ Uncl.

**ZVORYKIN, V.P.; SHKOL'NIK-YARROS, Ye.G.**

Numerical data on the relationship of the peripheral part of the visual  
analysors to cerebral ends of the analysors in a number of vertebrates.  
Ark. anat., Moskva 30 no.5:43-47 Sept-Oct 1953. (CML 25:4)

1. Of the Institute of the Brain (Director -- Prof. S. A. Sarkisov, Ac-  
tive Member AMS USSR), Ministry of Public Health USSR.

ZVORZIN, V.P.

Corpus geniculatum internum and acuity of hearing. Arkh.anat.gist.1  
embr. 31 no.1:22-35 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mozga Ministerstva zdavookhraneniya SSSR (direktor -  
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A.  
Sarkisov).

(Optic thalamus) (Hearing)

Card 1/1 Pub 154-17/19

Author : Zvorykin, V. P.

Title : Towards the question of the discovery of the excitability of the central nervous system

Periodical : Zhur. vys. nerv. deyat. 5, 292-298, Mar-Apr 1955

Abstract : Presents data supporting the view that priority for discovery of the excitability of the C. N. S. is due to the 19th-century Russian physician, A. I. Tyshetskiy, Photograph. Eleven references, all USSR (5 since 1940).

Institution : Institute of the Brain of the Academy of Medical Sciences USSR

Submitted :



ZVORYKIN, V.P. (Moskva, V.B.Mogil'tseveskiy per., d. 8, kv.3)

Cytoarchitectonic characteristics of the ganglion isthmi and  
its displacement in the brain stem in frog and in certain  
reptiles. Arkh.anat.gist.1 embr. 35 no.3:15-18 J1-S '56.  
(MIRA 12:11)

1. Iz instituta mozga AMN SSSR (dir. deystv. chl. AMN SSSR  
prof.S.A.Sarkisov)

(BRAIN, anatomy and histology,  
ganglion isthmi in frogs & reptiles (Rus))  
(REPTILES,  
ganglion isthmi in (Rus))  
(FROGS,  
same)

USSR / Human and Animal Morphology, Normal and Pathological.  
Nervous System. Central Nervous System.

S-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 83634  
Author : Zvorykin, V. P.  
Inst : Not given  
Title : Morphological Bases of Differences in Auditory Acuity in  
the Dog and the Monkey.  
Orig Pub : Uspekhi sovrem. biol. 1957, 44, No 3, 349-361.  
Abstract : In a series of microscopic sections, stained with cresyl-  
violet, a study was made of the subcortical auricular forma-  
tions in the dog (D), brain weight 95 g., and in the Mangoby  
monkey (M), brain weight 95 g. The total volume of all  
subcortical formations proved to be significantly greater in  
D than in M. The results of the measurements (in mm<sup>3</sup>) were:  
auditory tubercle - in D, 4.01, in M, 0.53; ventral audito-  
ry nucleus: in D, 8.19, in M, 2.58; superior olivary body:

Card 1/2

25-2-11/43

AUTHORS: Zvorykin, V.P. and Glezer, I.I., Scientific Workers of the  
Brain Research Institute of the Academy of Medical Sciences  
of the USSR

TITLE: An Erroneous Hypothesis (Oshibochnaya gipoteza)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 42-44 (USSR)

ABSTRACT: In this article the author strongly criticizes and refutes  
the hypothesis advanced by the Polish anthropologist, A. Vertsin-  
skiy, who believes that urbanization will result into physio-  
logical degeneration.  
There is one sketch.

ASSOCIATION: Brain Research Institute of the Academy of Medical Sciences of  
the USSR (Institut mozga Akademii meditsinskikh nauk SSSR)

AVAILABLE: Library of Congress

Card 1/1

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Moskva, Institutskaya ul., d.13, kv. 14), SPIROV, M.S. (Kiyev, d.13, kv. 14).

Conference of the Brain Institute of the Academy of Medical Sciences  
of the U.S.S.R. devoted to problems in the structure and function  
of the reticular formation and its place in the analyzer system.  
Arkh.anat., gist. 1 embr. 35 no.5:121-124 S-O '58 (MIRA 11:12)  
(SPINAL CORD)

"Morfologicheskaya perestroyka slukhovogo znalizatora, svyazannaya s  
suzheniem diapazona vosprinimayemykh zvukov u primatov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.

(Moskva, D-284, Begovaya ul., 11, kv.188)  
Morphological bases for the unequal role of the auditory and optical  
analynors in the behavior of dogs and monkeys. Arkh. anat. gist. i  
embr. 41 no.7:28-37 J1 '61.  
(MIRA 15:2)

1. Laboratoriya tsitoarkhitektoniki (zav. - zasluzhennyy deyatel'  
nauki, prof. Ye.P.Kononova) Instituta mozga ANN SSSR.  
(VISION) (HEARING) (CEREBRAL CORTEX)

Biomorphological comparison of the systems of subcortical formation  
of visual and auditory analyzer in dogs. Arkh.anat.gist.i embr:  
38 no.4:22-33 Ap '60. (MIRA 14:5)

1. Laboratoriya tsitoarkhtektoniki (zav. - zaslyzhennyy deyatel'  
nauki doktor meditsinskikh nauk prof. Ye.P.Konohova) Instituta  
mozga AMN SSSR.

(BRAIN---LOCALIZATION OF FUNCTIONS)  
(VISION) (HEARING)

"The Reaction of the Bladder and Intestines to Hypoxia of the Organism,"  
Voprosy fiziol. interots., No. 1, pp 37-49, 1952.

Summary of report -D 356476



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the provisions of the  
Executive Order on  
the release of information.

ZVORYKIN, V.V.; DVORTSIN, M.M.

Increasing the operative efficiency of the FK3 and KSA dryers. Kons. 1  
ov.prom. 18 no.4:13-15 Ap '63. (MIRA 16.3)

1. Upravleniye "Kiyevenergonaladka".  
(Drying apparatus)

YUDITSKIY, D. G.; ZVORYKIN, V. V.; ANPILOV, G. D.

Steam expenditure in the production of alcohol from molasses  
and in the processing of baker's yeast. Spirt. prom. 28 no.8:  
29-33 '62. (MIRA 16:1)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlen-  
nosti im. Mikoyana (for Yuditskiy). 2. Upravleniye "Kiyevenergo-  
naladka" (for Zvorykin, Anpilov).

(Distilling industries--Costs)

ZVORYKIN, V.V.; ANPILOV, G.D.

Steam, air and water consumption in the Plakhtyanka and Nemeshayev  
plants of antibiotic feeds. Spirt. prom. 28 no.6:25-29 '62.  
(MIRA 16:10)

1. Kiyevenergonaladka.

ZVORYKIN, V.V.

Automatic control of continuous cooking of raw materials. Spirt.  
prom. 22 no.2:19-21 '56. (MLRA 9:8)

1. Kiyevskoye upravleniye Orgprodenergo.  
(Distilling industries--Equipment and supplies)  
(Automatic control)

Oak

Differences in the development of vegetation  
in stands of early and late form of oak.  
Dokl. AN SSSR 83 no. 1, 1952

MLRA . Library of Congress, August, 1952, UNCLASSIFIED.

Oak

Differences in the development of vegetation in stands of early and late form of oak.  
Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 195<sup>2</sup>, Uncl.

2. USSR (600)

4. Oak

7. Differences in the development of vegetation in plantation of early and late oaks.  
Dokl. AN SSSR 84 No. 1, 1952. recd. 28 Feb. 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.



"Forestry and Forest Typology Importance of Underbrush in the Oak  
Forests of the Northwestern Caucasus." Sub 30 May 51, Inst of Forestry,  
Acad Sci USSR.

Dissertations presented for science and engineering degrees in  
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Mechanism of copper dissolution in hydrochloric acid. Trudy  
in Khim. i Khim. tekhn. no. 1:32-35 '64.

Mechanism of silver dissolution in hydrochloric acid.  
Ibid.:36-39

(MIRA 18:12)

1. Submitted September 23, 1963.

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

Author : Zvorykina, K. V.

Inst : Forestry Institute AS USSR

Title : Some Biological Peculiarities of the Field  
Maple (*Acer campestre* L.)

Orig Pub: Tr. In-ta lesa. AN SSSR, 1957, 33, 132-145

Abstract: These studies were conducted in the Borisogleb forest range (Tellerman Experimental Forest). Here maple enters the III stage where its height, depending on the conditions, reaches from 7 to 15 meters. It is distinguished by good development when it grows in oak groves. The possibility of maple propagation by cuttings or by the shoots on

Card 1/3

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the stump under given tree growing conditions is noted. Depending on the advanced age of the tree stand, the character of maple growth and its role in the composition of the tree stand and in the composition of the young trees near a wood is determined by light conditions. The dominating position passes completely to the chief forest forming varieties and the field maple is driven back to the lower tier and to young trees on the edge of the woods where the number of its skeletal axis reaches 42 thousand per hectare. This process is connected with maintenance felling. Particularly after these fellings the number of shoots is increased. The presence of a large number of maple trees under a canopy (resulting in a flat crown, short life span, early arrest of

Card 2/3

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Forest Biology and Typology.  
Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

K-2

the growth in height in the majority of skeletal axes) characterizes it as edge of the woods variety. However, under favorable conditions the growth of individual skeletal axes of the maple in the III and even II height level area may occur. The feasibility of the field maple being part of the wood-margin trees and the main height level area is emphasized. -- V. V. Protopopov

Card 3/3

Effect of tree and shrub species regenerated by sprouts on the  
development of oak stands. Trudy Inst. less 33:119-131 '57.  
(Reforestation) (Oak) (MIRA 10:10)

Biological characteristics of the common maple (*Acer campestre* L.)  
Trudy Inst. lesa 33:132-145 '57. (MIRA 10:10)  
(Maple)

BIOLOGY: Plant ecology

I

✓ DAN 49-66-4/713-16

II Associated with Institute of Forestry

✓ DAN 49-66-4/713-16

III

IV \*Coauthor with I N Yelagin "Supplies of Litter in  
Certain Types of Broad-Leaf Forests of the Foothills of  
the Northwestern Caucasus"

✓ DAN 49-64-5/715-18

Coauthor with I N Yelagin "Illumination Under the Canopy of  
Certain Types of Broad-Leaf Forests (Northwest Caucasus)"

✓ DAN 49-66-4/713-16



Oak

"Differences in the development of vegetation in stands of early and late form of oak."  
Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1951, Uncl.  
2

Association of early and late oak types with the relief elements.  
Izv. Vses. geog. ob-va 97 no.3:287-290 My-Je '65.

(MIRA 18:8)

Early spring aerial chemical spraying of shrubs. Zemledelie 27  
no.4:75-77 Ap '65. (MIRA 18:4)

1. Severnyy nauchno-issledovatel'skiy institut gidrotekhniki i  
melioratsii.

MLROFOL'SKAYA, Nina Konstantinovna; ZVORYKINA, L.N., red.

[Safety manual for operation of road machinery and equipment] Pamiatka po tekhnike bezopasnosti pri rabote na do-  
rozhno-stroitel'nykh mashinakh i mekhanizmax. Moskva,  
Stroizdat, 1964. 32 p. (MIRA 17:8)

BOLCHAN, Nikolay Aleksandrovich, kand. tekhn. nauk; ZVORYKINA, L.N., red.

[Safety manual for operators of tower cranes] Pamiatka  
po tekhnike bezopasnosti dlia mashinista bashennogo kra-  
na. Izd. 2., perer. i ispr. Moskva, Stroiizdat, 1964.  
38 p. (MIRA 17:7)

GUSHCHIN, Vitaliy Ivanovich; ZVORYKINA, L.N., red.

[Safety manual for operators of equipment for churn drilling] Pamiatka po tekhnike bezopasnosti dlia mashinista stanka udarno-kanatnogo bureniia. Moskva, Stroiizdat, 1964.  
28 p.  
(MIRA 17:6)

BONDAR', Yevgeniy Petrovich, inzh.; ZVONYKINA, L.N., red.

[Safety manual for assembling reinforced concrete  
elements] Pamiatka po tekhnike bezopasnosti dlia  
montazhnika zhelezobetonnykh konstruktsii. Ind.2.  
ispr. i dop. Moskva, Stroizdat, 1964. 31 p.  
(MIRA 17:6)

KLOCHANOV, Petr Nikolayevich; EYDINOV, Yuriy Solomonovich;  
ODINOKOV, S.D., kand. tekhn. nauk, nauchn. red.;  
ZVORYKINA, L.N., red.

[Painting, glazing, and facing operations] Maliarnye,  
stekol'nye i oblitsovochnye raboty. Moskva, Stroiizdat,  
1964. 313 p. (MIRA 18:2)



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[Safety manual for workers assembling mining equipment]  
Pamiatka po tekhnike bezopasnosti dlia rabochikh po  
montazhu gornorudnogo oborudovaniia. Moskva, Stroiz-  
dat, 1964. 29 p.  
(MIRA 17:9)

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"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065  
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RE YENOVICH, Arkady Il'ich; ZVORYKINA, L.N., red.

[Safety manual for the assembler of tower cranes construction] Pamiatka po tekhnike bezopasnosti dlia montazhnika stroitel'nykh bashennykh kranov. Izd.2., perer. 1 dop. Moskva, Stroiizdat, 1964. 46 p. (MIRA 17:6)

BOLOBAN, Nikolay Aleksandrovich; BELEVICH, Vladimir Borisovich;  
VELIKOTSKIY, Aleksandr Nikolayevich; MACHABELI, Shota  
Levanovich; RUFFEL', N.A., nauchn. red.; ZVORYKINA, L.N.,  
red.; MIKHEYEVA, A.A., tekhn. red.

[Assembling precast concrete structures] Montazh sbornykh  
zhelezobetonnykh konstruktsii. [By] N.A. Boloban. 1 dr.  
Moskva, Gosstroizdat, 1963. 344 p. (MIRA 16:10)  
(Precast concrete construction)

nauchn. red.; ZVORYKINA, L.N., red.; HOROVNEV, N.K.,  
tekhn. red.

[Preparation of formwork in industrial construction] Opa-  
lubochnye raboty v promyshlennom stroitel'stve. Moskva,  
Gosstroizdat, 1963. 311 p. (MIRA 16:11)  
(Concrete construction--Formwork)

KLINOV, V.F.; PANICHEV, V.I.; RUBINCHIK, A.M.; EYLER, S.A.,  
nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K.,  
tekhn. red.

[Construction of cofferdams and caissons] Stroitel'stvo  
opusknykh kolodtsev i kessonov. Moskva, Gosstroizdat,  
1963. 247 p. (MIRA 17:1)

(Cofferdams) (Caissons)

A.A., tekhn. red.

ZVORIKINA, L.N., red.; MIKHEYEVA,

[Safety manual for blasters (in open areas)] Pamiatka po  
tekhnike bezopasnosti dlia vzryvnika (na otkrytykh rabotakh)  
Izd.w., perer.i dop. Moskva, Gosstroizdat, 1963. 29 p.  
(Blasting--Safety measures) (MIRA 16:9)

red. ~~Pylyaylovich~~, kand. med. nauk; ZVORYKINA, L.N.

[Industrial hygiene in a cement factory] Gigiena truda na  
tsementnom zavode. Moskva, Stroiizdat, 1964. 46 p.  
(MIRA 17:5)

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K.Ye., tekhn. red.

ZUCOVKINA, B.N., red.; TARKHOVA,

[Rigger-signalman's safety manual] Pamiatka po tekhnike  
bezopasnosti dlia takelazhnika-signal'shchika. Izd.2., ispr.  
i dop. Moskva, Gosstroizdat, 1963. 45 p. (MIRA 17:3)



[Safety manual for stoncutters] Pamiatka po tekhnike bez-  
opasnosti dlia rezchika kamnia. Moskva, Gosstroisdat,  
1963. 37 p. (MIRA 16:9)  
(Stone cutting—Safety measures)

One way to metallize Seignette's salt. Trudy LKI no.28:199-201  
'59. (MIRA 15:5)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.  
(Rochelle salt) (Metal spraying)

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SOURCE CODE: UR/0020/66/168/003/0564/0566

AUTHOR: Myasnikov, L. L.; Zvorykina, R. A.

ORG: Leningrad Shipbuilding Institute (Leningradskiy korablestroitel'nyy institut)

TITLE: Magnetoacoustic effect in aluminum alloys

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 564-566

TOPIC TAGS: aluminum alloy, magnetoacoustic effect, acoustic absorption, torsional vibration, acoustic resonance, solid solution, grain structure

ABSTRACT: To check on the hitherto uninvestigated increase of the phase velocity and increase of absorption of torsional sound waves in alloys, the authors prepared aluminum alloys with different contents of iron impurity - of the order of tenths and hundredths of one per cent. Plates of equal dimensions were tested (130 x 7.5 x 2 mm), fastened precisely at the vibration node, tuned to odd harmonics, and excited by resonance with torsional oscillations from X-cut Rochelle salt crystals. The resonance curve was plotted by producing beats from two sound generators with a constant frequency difference of 50 cps. When a constant magnetic field was applied, the resonant frequency was different from that without a field. The relative change of phase velocity was determined from the change in the resonant frequency, and the damping of the torsional oscillations was estimated from the relative logarithmic decrement of the oscillation with and without the field. The results show that the magnetoacoustic effect depends on the grain dimensions, density, chemical composition, and other fac-

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UDC: 548.0: 535

ACC NR.

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tors which have not yet been investigated. (4) The magnetoacoustic effect was used to determine the limit of solubility of the solid solution during non-equilibrium dynamic solidification. The results obtained by the authors for the solubility of silicon in aluminum (0.48%) differed from the results published in the handbook, but was closer to the theoretical value. This report was presented by Academician B. P. Konstantinov 9 September 1965. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 11, 20/

SUBM DATE: 03 Sep 65/

ORIG REF: 003/

OTH REF: 001

Students' experiments on the use of antibiotics in poultry farming.  
Politekh. obuch. no.8:86 Ag '59. (MIRA 12:10)

1. Kuybyshevskiy oblastnoy institut usovershenstvovaniya uchiteley.  
(Poultry breeding) (Antibiotics)

arboxylic acid and its derivatives. IV,  $\beta$ -Amino-*o*-toluic acid. V. A. Zaryukina, Bull. acad. sci. U. S. S. R., *Chem. ser.*, 1963, 216-22 (English summary); cf. C. A. 28, 2710.  $-\text{CH}_3(\text{CO}_2\text{Et})$ , is better separated; cf. C. A. 28, 2710. HCl then by using alkali.  $\text{CH}_3(\text{CO}_2\text{H})$ , (I) and  $\text{MeCH}(\text{NH}_2)\text{OH}$  in ahrs. EtOH give a yellow oil which with acid-HCl gives 17% of the very hydroscopic  $\beta$ -aminobutyric acid-III, m. 100.5-10.5°. I,  $n\text{-C}_6\text{H}_{13}\text{CH}_2\text{CO}_2\text{H}$  and ahr.  $\text{NH}_3$  give 30%  $\beta$ -aminobutyric acid (II), m. 206-0.5°. IICI ahr. m. 133.5-0.5°. By-products are 37% 3-norbornene, 84%  $\beta$ -benzamidopropionic acid and a neutral oil. II and 129.5-31°. With  $\text{ClCO}_2\text{Et}$ , II forms 70% of the corresponding urethan (IV), m. 80°. II and  $\text{KClO}_4$  give 70% of the  $\beta$ -ureido deriv. (V), m. 127-8°. When V is boiled 7,8-dioxaspiro[4.5]undec-11-ene (VI), m. 180-7°, and hexyldihydropyrimidine. VI can be sepd. by crystn. from EtOH. III and  $\text{SOCl}_2$  at 70-80° give the acid chloride

which is treated with  $\text{NH}_3$  in Et<sub>2</sub>O to give 41% of the amide (VII) of III, m. 185-84, and 13% 2-phenyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (VIII); m. 74-8. Boiling VIII with  $\text{HCl}$  regenerates III, while boiling it with KOH gives running the reaction at 75-85°. Vacuum distn. of VII causes its decarbox. to a succinic acid whose amide is m. 123-7°. IV and SOCl<sub>2</sub> give an achi. chloride which with  $\text{NH}_3$  forms only the nitridal amide (IX), m. 168°. No (X) with SOCl<sub>2</sub> and  $\text{NH}_3$  at 75-85°. 2-Phenyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (X), m. 120-31°, gives 2,4-diphenyl- $\alpha$ -acetabenzohydroprimidine (XI), m. 120-31°, so this reaction is probably general. Sapon. of XI gives the amide of X. The Hofmann reaction with VII gives  $\text{R}_2\text{COH}$ , 4-benzyl- $\alpha$ -acetabenzohydroprimidine (XII), m. 119-14°, and 1-benzyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (XIII), m. 112-13°. Under the same conditions, IX gives XII and its urethan, m. 102-11°.

H. M. Lechter

H. M. Leichter

STOLNIKOVA, N.M.; DEVIATNIN, V.A.

Comparison of the iodate and indophenol tests for determining  
Ascorbic acid in industrial preparations. Trudy VNIVI 5:196-200  
'54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC ACID) (INDOPHENOL) (IODATES)

ZVORYKINA, V.B. [deceased]; STOL'NIKOVA, N.M.; Devyatnin, V.A.

A study of the reaction of furfurole with aniline and its use in making a qualitative evaluation of vitamin preparations. Trudy VNIVI 5:200-204 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC) (FURALDEHIDE) (ANILINE)





**Acylation reactions:** V. M. Rodionov and V. K.

Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 37, 583-8 (1947); *Chem. Zentr.* (Russian Zone Ed.) 1948, II, 955. Attempts to prep. 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine by the action of  $\text{Ac}_2\text{O}$  on  $\beta$ -benzamidopelargonicamide yielded 3-methyl-4-hexyl-6-oxotetrahydropyrimidine,  $\text{C}_{11}\text{H}_{17}\text{N}_2\text{O}$  (I). Therefore

the action of  $\text{Ac}_2\text{O}$  on other acyl compds. was investigated. Boiling  $\text{BaNHPh}$  with  $\text{Ac}_2\text{O}$  and treating the reaction product with boiling water yielded *acelanilide*.  $\text{PhCH}_2\text{CONHPh}$  treated in like manner yielded  $\text{AcNHPh}$ . The following esters were prepd. by heating the corresponding *acylamidopelargonic acids* with alc. and  $\text{H}_2\text{SO}_4$ . Et  $\beta$ -*acetylamidopelargonic* (II), thin needles from petr. ether, m. 49-50°, b<sub>p</sub> 174-5°.  $\beta$ -Benzamido analog (III), fine needles from ether-petr. ether, m. 62°, b<sub>p</sub> 218-19°. Treating III with  $\text{Ac}_2\text{O}$  and proceeding as above yielded II.  $\beta$ -(*Phenylacetyl*)*amido*pelargonic acid (IV), obtained from the amino acid with  $\text{PhCH}_2\text{COCl}$  in 10% KOH at 0-5°, needles from ether-petr. ether or from aq. alc., m. 102-3°, readily sol. in  $\text{Et}_2\text{O}$ . Treatment of IV with  $\text{SOCl}_2$  at 40° and then with  $\text{NH}_3$  yielded the amide (V), needles from alc., m. 182°. Heating V with  $\text{Ac}_2\text{O}$  yielded I, m. 81°. M. G. Moura

**Syntheses in the pyrimidine series.** V. M. Rodionov and V. K. Zorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1948, 330-40; cf. C.A. 38, 1473. — Conditions were established for the formation of amides and tetrahydropyrimidines by the interaction of acylated 2-amino acids and  $\text{SOCl}_2$ , followed by treatment with dry  $\text{NH}_3$ ; at 40-5° with the theoretical amt. of  $\text{SOCl}_2$ , good yields of amides are obtained; at 75-85° with excess  $\text{SOCl}_2$  are obtained the tetrahydropyrimidines. The reaction appears to be general in character and is easiest with  $\text{H}_2\text{NHR}$  acids. Repts. on the cyclization of amides of acylated amino acids by hot  $\text{Ac}_2\text{O}$  showed that benzoylated aminopelargonic acid gives not a Ph deriv. of tetrahydropyrimidine, but a Me deriv., i.e. the  $\text{H}_2$  group is replaced by Ac; such transacetylation gives quant. yields of  $\text{AcNH}(\text{Ph})$  from  $\text{H}_2\text{NHR}$  and  $\text{PhOAc}$ .  $\beta$ -Aminopelargonic acid (10 g.) in 120 cc. 10%  $\text{NaOH}$  was treated dropwise with 10.1 cc.  $\text{Ac}_2\text{O}$  at 5-10°, let stand 1 hr., and acidified with  $\text{HCl}$  to Congo red, giving 75%  $\text{Ac}$  deriv., m. 101-2° (from dil.  $\text{EtOH}$ ). This (9 g.) with the theoretical amt. of  $\text{SOCl}_2$ , heated to 40-5°, the residual  $\text{SOCl}_2$  removed *in vacuo*, and the residue in benzene or  $\text{Et}_2\text{O}$  treated with dry  $\text{NH}_3$ , gave 81%  $\beta$ -acetamidopelargonyl amide, needles, m. 170°.

This (1.7 g.), boiled 3 hrs. with 10 cc.  $\text{Ac}_2\text{O}$ , the excess  $\text{Ac}_2\text{O}$  removed *in vacuo*, and the residue boiled 0.5 hr. with 25 cc.  $\text{H}_2\text{O}$  and cooled, gave 75% 2-methyl-4-hexyl-6-oxo-tetrahydropyrimidine (I), needles, m. 88° (from  $\text{EtOH}$ ), petr. ether, after washing with 5%  $\text{NaOH}$ ; hydrolysis of this by 5%  $\text{NaOH}$  gave  $\beta$ -acetamidopelargonic acid, m. 101°. Boiling 5 g.  $\beta$ -benzamidopelargonyl amide (II) 4 hrs. with 40 cc.  $\text{Ac}_2\text{O}$  and treatment as above gave 1.7 g. 2-phenyl-4-methyl-6-oxo-tetrahydropyrimidine (III), needles, m. 120-21.5° (from benzene). G. M. Kosolapoff

3 hrs. with 5 cc.  $\text{H}_2\text{O}$ , washed with cold dil.  $\text{NaOH}$ , and the  $\text{Et}_2\text{O}$  soln. of the residue washed with dil.  $\text{NaOH}$  and evapd., gave 0.83 g. pure (and 0.21 g. crude) 2-phenyl-4-hexyl-6-oxo-tetrahydropyrimidine, m. 71° (from  $\text{EtOH}$ ), petr. ether). Refluxing 12.8 g. 3-carbethoxyindolopelargonyl amide 8 hrs. with 80 ml.  $\text{Ac}_2\text{O}$ , removal of the excess  $\text{Ac}_2\text{O}$ , boiling the residue 0.5 hr. with 75 ml.  $\text{H}_2\text{O}$ , and soln. in  $\text{Et}_2\text{O}$  gave 2.1 g. starting material and 2.5 g. corresponding acid (isol. in  $\text{Et}_2\text{O}$ ), while distn. of the  $\text{Et}_2\text{O}$  ext. gave 1.8 g. oil, b.p. 171-6°,  $n_D^{20}$  1.551,  $d_4^{20}$  0.98138, the latter (1.1 g.) boiled with 25 g. 50%  $\text{NaOH}$  gave 0.3 g.  $\beta$ -aminopelargonic acid (from  $\text{NaOH}$  soln. by faint acidification by  $\text{HCl}$ ) and 0.1 g. (1-aminomononaphthyl) carbonyl acid, m. 128° (by further acidification with  $\text{AcOH}$ ); this established the structure of the above-described oil as 1-acetyl-2-ethoxy-4-hexyl-6-oxo-tetrahydropyrimidine. The following derives were prepd. by the  $\text{SOCl}_2$ ,  $\text{NH}_3$  procedure as detailed above:  $\text{C}_6\text{H}_5\text{CH}(\text{NHMe})\text{CH}_2\text{CO}_2\text{H}$  gave either 80%  $\text{C}_6\text{H}_5\text{CH}(\text{NHMe})\text{CH}_2\text{CONH}_2$  (80%), needles, m. 185° (from  $\text{EtOH}$ ), or 2-phenyl-4-hexyl-6-oxo-tetrahydropyrimidine (81%), needles, m. 71-5° (from dil.  $\text{EtOH}$ );  $\text{C}_6\text{H}_5\text{CH}(\text{NHAc})\text{CH}_2\text{CO}_2\text{H}$  gave only the amide, m. 172°;  $\text{C}_6\text{H}_5\text{CH}(\text{NHCO}_2\text{Ph})\text{CH}_2\text{CO}_2\text{H}$  also gave only the amide, m. 158° (from  $\text{MeOH}$ ), 82%,  $\text{PhCH}(\text{NHMe})\text{CH}_2\text{CO}_2\text{H}$  gave either 95%  $\text{PhCH}(\text{NHMe})\text{CH}_2\text{CONH}_2$ , m. 240° needles (from  $\text{EtOH}$ ), or 60% 2-phenyl-4-phenyl-6-oxo-tetrahydropyrimidine, needles, m. 135° (from  $\text{EtOH}$ ); the corresponding  $\text{Ac}$  compd. gave only the amide, m. 223° (from  $\text{EtOH}$ ), in 95% yield;  $\text{PhCH}(\text{NHCO}_2\text{Ph})\text{CH}_2\text{CO}_2\text{H}$  also gave only the amide (91%), needles, m. 103° (from  $\text{EtOH}$ );  $\text{MeCH}(\text{NHMe})\text{CH}_2\text{CO}_2\text{H}$  gave either 60.7% amide, needles, m. 204-5° (from benzene), or 70.6% 2-phenyl-4-methyl-6-oxo-tetrahydropyrimidine, needles, m. 120-21.5° (from benzene). G. M. Kosolapoff

Chemical Tech. Inst. sub. B. 1111111111

10

Transformation of amides of  $\beta$ -alkyl(aryl)- $\beta$ -carbethoxyaminopropionic acids into  $\beta$ -ureido acids. V. M. Rodionov and V. K. Zvyrykina. *Doklady Akad. Nauk S.S.S.R.* 65, 853-5 (1949).—Heating 2 g.  $\text{C}_6\text{H}_5\text{CH}(\text{NHCO}_2\text{Et})\text{CH}_2\text{CONH}_2$  with 25 ml. 5% KOH 1 hr. and acidification gave 80%  $\beta$ -ureidopropionic acid; if 0.5 g. of the amide and 5 ml. EtONa soln. in EtOH are let stand 3 days, diln. gives 0.2 g. unchanged amide, while acidification gives a little hexylidihydrouracil, with further acidification giving 0.16 g.  $\beta$ -ureidopropionic acid, m. 127-8°. Heating 1 g.  $\text{PhCH}(\text{NHCO}_2\text{Et})\text{CH}_2\text{CONH}_2$  with 20 ml. 5% NaOH 40 min. and acidification gave 80%  $\beta$ -phenyl- $\beta$ -ureidopropionic acid, m. 100-1°; this is formed also by boiling 4-phenyl-2,6-diketohexahydropyrimidine with 5% NaOH and acidification. 2-C<sub>6</sub>H<sub>5</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H treated in 15 ml. 10% KOH with 0.6 ml.  $\text{ClCO}_2\text{Et}$  gave the *N*-carbethoxy deriv., m. 147-8°, on acidification; heating 1.2 g. of this and 0.6 ml.  $\text{SOCl}_2$  3 hrs. at 40-5°, evapp. the  $\text{SOCl}_2$  and treating with  $\text{NH}_3$  in Et<sub>2</sub>O gave 90% of the corresponding amide, m. 224° (from EtOH), which (0.3 g.) warmed with 5% NaOH gave 0.21 g. (77%)  $\beta$ -ureido-2-naphthalenopropionic acid, m. 107° (decompn.), on acidification. G. M. K.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION STRIPED

SECONDARY UNIT

SELECTION

SELECTION ONE

[illegible]

oil yielded 1.24 g. V, (0.0)5 g.  $\beta$ -carbethoxystyrimine to lactic acid, some HCN, and a solid, mp. 121.2°, which is also obtained among the products of hydrolysis of I with aq. KOH, and which is given the provisional formula,  $C_{10}H_{10}O$ .

$\text{C}_{10}\text{H}_{17}\text{NO}$ , and when hydrogenated over PtO<sub>2</sub> gave  $\text{C}_{10}\text{H}_{19}\text{NO}$ . The compound was reduced by LiAlH<sub>4</sub> to  $\text{C}_{10}\text{H}_{19}\text{N}$  which was identified as N-ethyldecylamine (VI) with 3.1 ml H<sub>2</sub> at 72 mm, KOH and 72 ml H<sub>2</sub>O; similarly gave after rapid cooling, when 65% was obtained by the soln., 0.07, 1.20 g, 1.05 l H<sub>2</sub>, c. 3-hr. deriv. (VII) with Ag<sub>2</sub>O, KOH gave V, m. 118°. Similar reaction with the 3-hr. deriv. (VIII) of VI gave 3-hydroxy-2-methyl-2-mundatolane (IX), in 10% yield, same V. Boiling point of II and appreciable amounts of a unknown substance, in 75%, contg. c. 10% I, and A. IR hydrolysis of the IX gave unknown neutral products, but acetic hydrolysis gave 1-hydroxy-2-mundatane, isolated as the diacetate salt, whose N,N'-diacetyl derivative, in 80% yield with MeCOCH<sub>3</sub>/NaOH in Et<sub>2</sub>O gave 40%; 2-mundatane, in 100% yield. This (58 g.) added with cooling at -10° to 28 ml H<sub>2</sub> in 80 g NaOH and 50 ml H<sub>2</sub>O, stirred 3 hrs., and warmed to 50° (no spontaneous reaction) gave 3.7 g. oil, largely b.p. 163–5° (30% yield of pure product), identified as 3-hydroxy-1,2,3-trimethyl-2-butanol, white 27% quantity and was also isolated.

12. M. Knecht

Carbazide Acids  
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065720004-5  
CIA-RDP86-00513R002065720004-5"

General method of obtaining B-semi-carbazide acids. Dokl. AN SSSR, 85, No. 3, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R0020065720004-5

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R0020065720004-5

Polynuclear aromatic acids and their transformations.

Redonov, V. K. / VOGYKUT, and L. R. Kuznetsov.

for the 1st R. 23: 1704.

EVERETT, V.K.

The work of Academician V.M. Rodionov in the field of -amino acids.  
Soob.o nauch.rab.chl.VKHO no.4:5-21 '54. (MIRA 10:10)  
(Amino acids)



RODIONOV, V.M. [deceased], ZAPOLYKINA, V.M.

Preparation and reactions of certain derivatives of  $\beta$ -ureidopelargonic acid. Izv.AN SSSR.Otd.khim.nauk no.3:332-335 Mr '56.

(MLRA 9:8)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Nonanoic acid)



E-2

USSR/Organic Chemistry - Synthetic Organic Chemistry

Abs Jour : Referat Zhur • Khimiya, No 2, 1957, 4405

Author : Rodionov, V.M., Zvorykina, V.K.

Title : Syntheses of Pyrimidine Series. II. Conversion of Diastereoisomeric Gamma-Ethyl-Beta-Aminocaprylic Acids to Substituted Tetra- and Hexahydropyrimidines.

Orig Pub : Zh, obshch. khimii, 1956, 26, No 4, 1165-1169

Abstract : Isomeric gamma-ethyl-beta-ureidocaprylic acids (Ia,b) are obtained from the two diastereoisomeric gamma-ethyl-beta-aminocaprylic acids (IIa,b) by three procedures: a) heating of II with KCNO; b) heating of amides of N-carbethoxy-derivatives of II with alkali; c) saponification of 4-(1'-ethylpentyl)-2,6-dioxohexahydropyrimidines (IIIa,b). By boiling with HCl (acid) I are converted to III. Action of SOCl<sub>2</sub> followed by NH<sub>3</sub> on N-benzoyl derivatives of IIa,b, gives 2-phenyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (IVa,b).

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USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

Heating of diastereoisomeric amides of gamma-ethyl-beta-(N-acetylamino)-caprylic acids (Va,b) with  $(CH_3CO)_2O$  gives 2-methyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (VIa,b). - From 12 g N-carbethoxy-IIa (prepared in usual manner from IIa, yield 74%, MP 60-61° (from petroleum ether)) by heating with 5 ml  $SOCl_2$  at 40° for 3 hours, driving off excess  $SOCl_2$  in vacuum, adding 500 ml ether and saturating with  $NH_3$ , is obtained the amide of N-carbethoxy-IIa, yield 68%, MP 146° (from water). Analogously from N-carbethoxy-IIb (prepared from IIb, yield 70%, MP 63-64° (from alcohol-petroleum ether)), is prepared amide of N-carbethoxy-IIb, yield 70.6%, MP 144° (from water). 1 g of the amide thus obtained, in 20 ml 10% solution of NaOH, boiled until dissolved, acidified to get Ia, yield 86%, MP 142° (from water) or Ib, yield 0.85 g, MP 169° (from alcohol), respectively. On heating IIa,b with solution of  $KCNO$  the yield of I is 85 and 76%,

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USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

respectively. I boiled with 12% solution HCl, for 3 hours; yield of IIIa 67%, MP 152° (from water); yield of IIIb 80%, MP 145-146° (from water). 5 g N-benzoyl-II heated with 3.75 ml SOCl<sub>2</sub> at 75-80° for 3 hours, SOCl<sub>2</sub> driven off, added ether and saturated with NH<sub>3</sub>; yield of IVa 44.8%, MP 125° (from aqueous alcohol); yield of IVb 62%, MP 123° (from aqueous alcohol). To mixture of II and 10% solution NaOH added (CH<sub>3</sub>CO)<sub>2</sub>O; yield of N-acetyl-IIa 81-3%, MP 118° (from water); yield of N-acetyl-IIb 78.8%, MP 117° (from water). By action of SOCl<sub>2</sub> and NH<sub>3</sub> on the latter there are obtained Va, yield 89.3%, MP 195° (from alcohol), and Vb, yield 77.6%, MP 175° (from alcohol). Mixture of 1.5 g V and 30 ml (CH<sub>3</sub>CO)<sub>2</sub>O boiled 4 hours, (CH<sub>3</sub>CO)<sub>2</sub>O driven off; yield of VIa 76%, MP 92° (from aqueous alcohol); yield of VIb 70%, MP 86-87° (from ether).

Card 3/3

RODIONOV, Vladimir Mikhaylovich, akademik [deceased]; ZVORYKINA, V.K.,  
sostavitel'; KISELEVA, V.V., sostavitel'; FEDOROVA, A.M.,  
[translator]; KNUNYANTS, I.L., akademik, otv.red.; SHEMYAKIN, M.M.;  
akademik, otv.red.; SHVETSOV, Yu.B., red.isd.; POLENKOVA, T.P.,  
tekhn.red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR.  
1958. 792 p. (MIRA 12:2)

(Chemistry, Organic)

AUTHORS: Gol'dfarb, Ya. L., Zvorykina, V. K.    SOV/62-58-6-15/37

TITLE: Investigation of the N-Oxides of Some Heterocyclic Bases  
(Izucheniye N-okisey nekotorykh geterotsiklicheskikh osnovaniy) Communication I. On the Production and Properties of Nicotine Oxides (Soobshcheniye 1:0 polucheni i svoystvakh N-okisey nikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 748-755 (USSR)

ABSTRACT: Three types of oxides can be produced from nicotine: Pl-N-oxide, Py-N-oxide, Py,Pl-N-dioxide. Most papers on nicotine oxidation deal with the compounds of the first type. The authors begin by mentioning the papers by Finner and Wolfenstein (Vol'fenshteyn) (Ref 1) Auerbach (Auerbakh) and Wolfenstein (Ref 2), Weil (Veyl') (Ref 4), Hains (Khayns) and Eisner (Eyzner) (Ref 5) and other authors. The present paper deals with the investigation of the reaction of the oxidation of nicotine  $H_2O_2$ , on which occasion all three N-oxides were obtained in form of crystals. Of these, nicotine-Pl-Py-dioxide and nicotine-Py-N-oxide have as yet not been described in

Card 1/2

Investigation of the N-Oxides of Some Heterocyclic  
Bases. Communication I. On the Production and  
Properties of Nicotine Oxides

SOV/62-58-6-15/37

published works. Pl-Py-dioxide was obtained as a crystal hydrate (with 2 water molecules and a water-free base), as monopicrate, dichlorohydrate, and mercury complex. For the Py-monoxide of nicotine a crystal base, dichlorohydrate, dipicrate, and a mercury derivative were obtained. For nicotine-Pl-N-oxide, which had already been obtained by Pinner (under the name of "Oxynicotine") the authors obtained a hitherto not described chlorohydrate; the water-free base was separated. There are 11 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy AS, USSR)

SUBMITTED: December 13, 1956

1. Nicotine oxides--Production
2. Nicotine oxides--Properties



AUTHORS: Zvorykina, V. K., Alashev, F. D., 62-58-6-29/37  
Gol'dfarb, Ya. L.

TITLE: The Production of N-Oxides of N-Methylanabasine (Polucheniye N-okisey N-metilanabazina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 788 - 790 (USSR)

ABSTRACT: Continuing the investigation of the N-oxides of bi-tertiary cyclic bases (Refs 1,2), the authors carried out the oxidation (by means of hydrogen peroxide) of N-methylanabasine. Bases of the N-oxides of N-methylanabasine which had hitherto not been described in published works, viz. N,N'-dioxide, Py-N-oxide, and Pi-N-oxide, as well as the picrates and hydrochlorides of these oxides were obtained. The structure of the N-oxides of N-methylanabasine was determined by reduction by means of zinc and hydrochloric acid in N-methylanabasine (and was identified as a di-picrate). There are 4 references, 2 of which are Soviet.

The Production of N-Oxides of N-Methylanabasine

SOV 62-58-6-29/37

ASSOCIATION: Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk  
SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED: January 29, 1958

1. Nitrogen oxides--Production 2. Cyclic compounds--Oxidation

AUTHOR: Gol'dfarb, Ya. L., Zvervskaya, V. L. SOV/62-58-7-21/66

TITLE: The Production of the N-Oxides of  $\alpha$ - and  $\alpha'$ -Aminonicotine  
(Polucheniye N-okisey  $\alpha$ - i  $\alpha'$ -aminonikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1958, Nr 7, pp. 900-903 (USSR)

ABSTRACT: In previous articles the authors described the N-oxides of  
nicotine (Ref 1) and N-methylanabasine. The investigations in  
the field of the nictines were continued by the description  
of the production of various N-oxides of the benzoyl- $\alpha'$ -amino-  
nicotine given in this paper. Furthermore (in the saponifica-  
tion of the latter by means of hydrochloric acid) they dealt  
with the production of the N-oxides of the corresponding  
 $\alpha'$ -aminonicotines. Analogous to the N-oxides of the  $\alpha$ -amino-  
and acyl amino piperidines (described by Adams and Miyano,  
Ref 5, Kartitskiy, Ref 6) Pl, Py-dioxides and Py-monoxide are  
amphoteric compounds which dissolve only in caustic alkali  
and mineral acids.

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30V/62-58-7-11/26

• The Production of the N-Oxides of  $\alpha$ - and  $\alpha'$ -Aminonicotine

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii  
Nauk SSSR  
(Institute of Organic Chemistry named N. D. Zelinskiy, AS USSR)

SUBMITTED: February 28, - 1953

Card 1/1

AUTHORS: Zvorykina, V. K., Neyland, O. Ya. SOV/62-58-9-13/26

TITLE: Concerning Several **Conversion** Products of the Diastereo-  
isomers of  $\gamma$ -Ethyl- $\beta$ -N-Carbethoxyaminocaprylic Acid (O  
nekotorykh produktakh prevrashcheniya diastereoizomernykh  
 $\gamma$ -etil- $\beta$ -N-karbetoksiaminokaprilovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1958, Nr 9, pp 1099 - 1103 (USSR)

ABSTRACT: In the previous papers the authors reported the pre-  
paration of two diastereoisomers of  $\gamma$ -ethyl- $\beta$ -amino-  
caprylic acid, which were referred to as  $A_1$  and  $A_2$  in  
these papers. Also prepared were several derivatives and  
transformation products (Refs 1-3). In testing these  
compounds biologically it was found that several of  
them (especially isomer  $A_2$ ) had bacteriostatic properties.  
The authors were therefore interested in carrying out  
further, similar investigations to test the chemical and  
biological properties of these compounds. To do this,  
however, it was necessary that the molecular configurations  
be maintained and that substitution take place at the

Card 1/2

Concerning Several **Conversion** Products of the SOV/62-58-9-13/26  
Diastereoisomers of  $\gamma$ -Ethyl- $\beta$ -N-Carbethoxyaminocaprylic Acid

functional groups. Therefore the authors prepared diastereoisomers ( $A_1$  and  $A_2$ ) of  $\gamma$ -ethyl- $\beta$ -( $\omega$ -phenylureido) caprylic acid,  $\gamma$ -ethyl- $\beta$ -semicarbazidocaprylic acid, and 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine. For the synthesis of these compounds the reactions discovered by Rodionov and Zvorykina (Ref 4) were used. In addition to these reactions (in order to compare the yields) the isomers of these compounds were prepared by the method of Longfield and Stieglitz (Longfel'd and Shtiglits) (Ref 8), by reacting phenyl isocyanate with  $\gamma$ -ethyl- $\beta$ -aminocaprylic acid (Ref 3), and by the hydrolysis of 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine (Ref 4), respectively. There are 8 references, 7 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk  
SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED: February 2, 1957  
Card 2/2

GOL'DFARB, Ya.L.; ALASHEV, F.D.; ZVORYKINA, V.K. [deceased]

Preparation of anabasine Py-N-oxide. Izv. AN SSSR Ser. khim.  
no.12:2241-2242 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo  
AN SSSR.

GOL'DFARB, Ya. L.; ALASHEV, F. D.; ZVORYKINA, V. K.

Oxidation of anabasine by hydrogen peroxide. Izv. AN SSSR  
Otd. khim. nauk no.12:2209-2216 D '62.

(MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Anabasine) (Hydrogen peroxide)



Ultraviolet absorption spectra of some pyridine and nicotine derivatives. Report No.4: Absorption spectra of N-oxides of nicotine and N-methylanabasine. Izv.AN SSSR.Otd.khim.nauk no.6:1119-1123 J1 '60. (MIRA 13:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.  
(Pyridine) (Piperidine)

MAYRANOVSKIY, S.G.; BARASHKOVA, N.V.; ALASHEV, P.D.; ZVORYKINA, V.K.

Polarographic study of N-oxides of anabasine and N-methylanabasine. Izv.AN SSSR Otd.khim.nauk no.5:938-940 My '60.  
(MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Anabasine)

1. Khimiko-analiticheskaya laboratoriya.  
(OILS AND FATS) (VITAMINS)

DEVYATNIN, V.A.; ZVORYKINA, V.V. [deceased]; STOL'NIKOVA, N.M.

Effect of moisture on the decomposition of vitamins C and B<sub>1</sub> in  
preparations. Trudy VNIVI 5:42-46 '54. (MLBA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC ACID) (THIAMINE)

IOSIKOVA, V.M.; KRAVCHINA, L.N.; ZVORYKINA, Y.Y.

Study of the stability of vitamins in the polyvitaminic dragee.  
Trudy VNIIV 6:131-136 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Khimiko-analiticheskaya laboratoriya.  
(VITAMINS)

1891 Comparison of results of determining ascorbic acid in industrial preparations by the iodate and triiodophenol methods. V. A. Levaytina, V. A. Yurkova and M. M. Kabanova. *Trudy Vsesoyuznogo Nauchno-Issledovatskogo Instituta Khimicheskoy Tekhnologii* 1954 1: 100. *Russian*. 10 refs. 1000 words. 1000 words.

1894 The error in the determination of the acid by the dihalophenolmethane method is 0.57 to 0.64 per cent and that by the iodate method is 0.04 to 0.19 per cent. The latter method is recommended for determination of ascorbic acid in and in tablets as well as in crystalline preparations. (Chem. Abstr.)

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0552

Executive Order 12812, which states that the  
President may, in his discretion, suspend or  
revoke the automatic termination of the  
employment of any Federal employee who is  
found to be a member of the Communist Party  
of the United States or any of its branches,  
units, or affiliates.



Chemical analysis of vitamin B<sub>12</sub> in laboratory of M.  
Fekova, V. I. Izyakina and L. N. Chirakova. Study  
of the effect of vitamin B<sub>12</sub> on the growth of the  
organism. *Vopr. Khim. i Med.* 4, 238-40  
1962. B. S. Levina.

Short-cut method for calculating the production norms of workers,  
and the coefficient of output and operative efficiency of the  
weaving equipment. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.3:  
3-14 '62. (MIRA 17:10)

1. Leningradskiy tekstil'nyy institut imeni Kirova.

**FRIDMAN, I., inzhener; ZVOZSKOV, B., inzhener.**

**An automatic truck tilter. Avt.transp. 33 no.3:33 Nr '55.  
(Motor trucks) (MLBA 8:5)**

IL'IN, M.I.; ZVOSKOVA, N.S., starshiy agronom; LEYN, Z.Ya.; ZVIAGINTSEVA, Ye.I.; MARINICH, P.Ye., red.; ZABORSKIY, N.I., red.; PECHENKIN, I.V., tekhn. red.

[New corn hybrids Bukovine 3 and Bukovina 2; results of stale crop variety tests] Novye gibridy kukuruzy Bukovinskii 3 i Bukovinskii 2; rezul'taty gosudarstvennogo sortoispytaniia. Moskva, Izd-vo M-va sel'. khoz. SSSR, 1960. 45 p. (MIRA 14:8)

1. Russia(1923- U.S.S.R.) Gosudarstvennaya komissiya po sortoispytaniyu sel'skokhozyaystvennykh kul'tur. 2. Zavedutynshchaya khimicheskoy laboratoriyey Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Leyn). 3. Zamestitel' predsedatelya Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Marinich).

(Corn (Maize)—Varieties)

ZVOSKOVA, H.S.; LAPPO, A.A.

Survey of the achievements of master corn growers. Zemledelie 6 no.12:  
37-41 D '58. (MIRA 11:12)

(Corn (Maize))

ZVOSKOVA, N.S.

Examples of displays from the corn exhibit. Zemledelie 6 no.3:95  
Mr '58. (MIRA 11:4)

(Corn (Maize))

ZVUKOV, N. M., inzh.

Tracks in Czechoslovakian open-pit mines. Ugol' 38 no. 4:56-57  
Ap '63. (MIRA 16:4)

(Czechoslovakia—Mine railroads—Track)

ZVUKOV, N.M., inzh.

Railroad tracks in the metallurgical and machinery plants of  
Czechoslovakia. Zhel.dor.transp. 44 no.8:88-93 Ag '62.  
(MIRA 15:8)  
(Czechoslovakia--Industrial railroads)



ZAKATALOV, Ye.V., inzh.; BELYKH, K.D., inzh.; ZVUKOV, N.M., inzh.;  
SKVORTSOV, O.S., inzh.; NETUBOV, V.P., inzh.; AL'BREKHT, V.G.,  
doktor tekhn. nauk, prof., red.; PETROVA, V.L., red.;  
USENKO, L.A., tekhn. red.

[Mechanization of the repair and maintenance of normal and  
narrowgauge railroad tracks of industrial enterprises]  
Mekhanizatsiia remonta i soderzhaniiia zhelezodorozhnykh putei  
normal'noi i uzkoj kolei promyshlennyykh predpriatii. Moskva,  
Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia,  
1962. 63 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii  
institut zhelezodorozhnogo transporta. Trudy, no.225).  
(MIRA 15:5)

1. Nachal'nik sluzhby puti zavoda chernoy metallurg im.  
Dzerzhinskogo (for Belykh).  
(Railroads, Industrial--Maintenance and repair)

KOTEL'NIKOVA, A.V.; ZVYAGIL'SKAYA, R.A.

Adenosinetriphosphatase activity in mitochondria of *Endomyces magnusii* yeasts. Biokhimiia 29 no.4:662-672 J1-Ag, '64.  
(MIRA 18:6)

1. Institut biokhimiia imeni Bakha AN SSSR, Moskva.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Study of the oxidation of different substrates and coupled phosphorylation in subcellular preparations from *Endomyces magnusii* yeasts. Biokhimiia 29 no. 1:65-70 Ja-F '64.  
(MIRA 18:12)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.  
Submitted April 12, 1963.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Effectiveness of oxidative phosphorylation in yeast mitochondria.  
Dokl. AN SSSR 164 no.2:448-450 S '65. (MIRA 18:9)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Submitted  
October 28, 1964.

ZVORYKIN, V.N.

Typological characteristics of the higher nervous activity of dogs  
during changes in the barometric pressure. Funk. org. v usl. inn.  
gaz. sredi 3:156-162 '64. (MIRA 17:11)

ZVORYKIN, V.N.; KORESHKOV, A.A.; MAL'KOV, P.A.

Reflex influences from the mechanoreceptors of the gastrointestinal tract on breathing and the cardiovascular system during barometric pressure drops. Funk. org. v usl. izm. gaz. sredy 3:242-251 '64.

(MIRA 17:11)

Certain peculiarities of proximal subcortex of the acoustic analyzer;  
comparative anatomical study in mammals. Arkh. anat., Moskva 29 no.2:  
10-17 Mar-Apr 1952. (GIML 23:2)

1. Of the Scientific-Research Institute of the Brain (Director ---  
S. A. Sarkisov, Active Member of the Academy of Medical Sciences USSR),  
Ministry of Public Health USSR.

1. ZVORZIN, V. P.
2. USSR (600)
4. Embryology, Human
7. Problem of shifting of the corpus geniculatum mediale in the course of its development, Arkhiv. anat. gist. i embr., 29, No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.



## Nervous System

A. I. Tyshetskiy and the discovery of the excitability of the central nervous system.  
Zhur. nevr. i psikh. 52, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, ~~1953~~ Uncl.

**ZVORYKIN, V.P.; SHKOL'NIK-YARROS, Ye.G.**

Numerical data on the relationship of the peripheral part of the visual  
analysors to cerebral ends of the analysors in a number of vertebrates.  
Arkhn. anat., Moskva 30 no.5:43-47 Sept-Oct 1953. (CML 25:4)

1. Of the Institute of the Brain (Director -- Prof. S. A. Sarkisov, Active Member AMS USSR), Ministry of Public Health USSR.

ZVORZIN, V.P.

Corpus geniculatum internum and acuity of hearing. Arkh.anat.gist.1  
embr. 31 no.1:22-35 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mosga Ministerstva zdavookhraneniya SSSR (direktor -  
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A.  
Sarkisov).

(Optic thalamus) (Hearing)

USSR/Medicine Higher Nervous Activity

CIA-RDP86-00513R002065720004-5"

FD-279b

Card 1/1 Pub 154-17/19

Author : Zvorykin, V. P.

Title : Towards the question of the discovery of the excitability of the central nervous system

Periodical : Zhur. vys. nerv. deyat. 5, 292-298, Mar-Apr 1955

Abstract : Presents data supporting the view that priority for discovery of the excitability of the C. N. S. is due to the 19th-century Russian physician, A. I. Tyshetskiy, Photograph. Eleven references, all USSR (5 since 1940).

Institution : Institute of the Brain of the Academy of Medical Sciences USSR

Submitted :

ZVORYKIN, V.P. (Moskva, V.B.Mogil'tseveskiy per., d. 8, kv.3)

Cytoarchitectonic characteristics of the ganglion isthmi and  
its displacement in the brain stem in frog and in certain  
reptiles. Arkh.anat.gist.1 embr. 35 no.3:15-18 J1-S '56.  
(MIRA 12:11)

1. Iz instituta mozga AMN SSSR (dir. deystv. chl. AMN SSSR  
prof.S.A.Sarkisov)

(BRAIN, anatomy and histology,  
ganglion isthmi in frogs & reptiles (Rus))  
(REPTILES,  
ganglion isthmi in (Rus))  
(FROGS,  
same)

USSR / Human and Animal Morphology, Normal and Pathological.  
Nervous System. Central Nervous System.

8-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 83634  
Author : Zvorykin, V. P.  
Inst : Not given  
Title : Morphological Bases of Differences in Auditory Acuity in the Dog and the Monkey.  
Orig Pub : Uspekhi sovrem. biol. 1957, 44, No 3, 349-361.  
Abstract : In a series of microscopic sections, stained with cresyl-violet, a study was made of the subcortical auricular formations in the dog (D), brain weight 95 g., and in the Mangoby monkey (M), brain weight 95 g. The total volume of all subcortical formations proved to be significantly greater in D than in M. The results of the measurements (in mm<sup>3</sup>) were: auditory tubercle - in D, 4.01, in M, 0.53; ventral auditory nucleus: in D, 8.19, in M, 2.58; superior olivary body:

Card 1/2

25-2-11/43

AUTHORS: Zvorykin, V.P. and Glezer, I.I., Scientific Workers of the  
Brain Research Institute of the Academy of Medical Sciences  
of the USSR

TITLE: An Erroneous Hypothesis (Oshibochnaya gipoteza)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 42-44 (USSR)

ABSTRACT: In this article the author strongly criticizes and refutes  
the hypothesis advanced by the Polish anthropologist, A. Vertsin-  
skiy, who believes that urbanization will result into physio-  
logical degeneration.  
There is one sketch.

ASSOCIATION: Brain Research Institute of the Academy of Medical Sciences of  
the USSR (Institut mozga Akademii meditsinskikh nauk SSSR)

AVAILABLE: Library of Congress

Card 1/1

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Moskva, 28.09.1958, d.13, kv. 14), SPIROV, M.S. (Kiyev,  
Institutskaya ul., d.13, kv. 14).

Conference of the Brain Institute of the Academy of Medical Sciences  
of the U.S.S.R. devoted to problems in the structure and function  
of the reticular formation and its place in the analyzer system.  
Arkh.anat., gist. 1 embr. 35 no.5:121-124 S-O '58 (MIRA 11:12)  
(SPINAL CORD)



"Morfologicheskaya perestroyka slukhovogo znalizatora, svyazannaya s  
suzheniem diapazona vosprinimayemykh zvukov u primatov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.

(Moskva, D-284, Begovaya ul., 11, kv.188)  
Morphological bases for the unequal role of the auditory and optical  
analynors in the behavior of dogs and monkeys. Arkh. anat. gist. i  
embr. 41 no.7:28-37 J1 '61.  
(MIRA 15:2)

1. Laboratoriya tsitoarkhitektoniki (zav. - zasluzhennyy deyatel'  
nauki, prof. Ye.P.Kononova) Instituta mozga AN SSSR.  
(VISION) (HEARING) (CEREBRAL CORTEX)

Biomorphological comparison of the systems of subcortical formation  
of visual and auditory analyzer in dogs. Arkh.anat.gist.i embr:  
38 no.4:22-33 Ap '60. (MIRA 14:5)

1. Laboratoriya tsitoarkhtektoniki (zav. - zaslyzhennyy deyatel'  
nauki doktor meditsinskikh nauk prof. Ye.P.Konohova) Instituta  
mozga AMN SSSR.

(BRAIN---LOCALIZATION OF FUNCTIONS)  
(VISION) (HEARING)

"The Reaction of the Bladder and Intestines to Hypoxia of the Organism,"  
Voprosy fiziol. interots., No. 1, pp 37-49, 1952.

Summary of report -D 356476

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to the public in accordance with  
the policy of the CIA to release  
information that is not  
otherwise available to the public.

ZVORYKIN, V.V.; DVORTSIN, M.M.

Increasing the operative efficiency of the FK3 and KSA dryers. Kons. 1  
ov.prom. 18 no.4:13-15 Ap '63. (MIRA 16.3)

1. Upravleniye "Kiyevenergonaladka".  
(Drying apparatus)

YUDITSKIY, D. G.; ZVORYKIN, V. V.; ANPILOV, G. D.

Steam expenditure in the production of alcohol from molasses  
and in the processing of baker's yeast. Spirt. prom. 28 no.8:  
29-33 '62. (MIRA 16:1)

1. Kiyevskiy tekhnologicheskii institut pishchevoy promyshlen-  
nosti im. Mikoyana (for Yuditskiy). 2. Upravleniye "Kiyevenergo-  
naladka" (for Zvorykin, Anpilov).

(Distilling industries--Costs)

ZVORYKIN, V.V.; ANPILOV, G.D.

Steam, air and water consumption in the Plakhtyanka and Nemeshayev  
plants of antibiotic feeds. Spirt. prom. 28 no.6:25-29 '62.  
(MIRA 16:10)

1. Kiyevenergonaladka.



ZVORYKIN, V.V.

Automatic control of continuous cooking of raw materials. Spirt.  
prom. 22 no.2:19-21 '56. (MLRA 9:8)

1. Kiyevskoye upravleniye Orgprodenergo.  
(Distilling industries--Equipment and supplies)  
(Automatic control)

Oak

Differences in the development of vegetation  
in stands of early and late form of oak.  
Dokl. AN SSSR 83 no. 1, 1952

MLRA . Library of Congress, August, 1952, UNCLASSIFIED.

Oak

Differences in the development of vegetation in stands of early and late form of oak.  
Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 195<sup>2</sup>, Uncl.

2. USSR (600)

4. Oak

7. Differences in the development of vegetation in plantation of early and late oaks.  
Dokl. AN SSSR 84 No. 1, 1952. recd. 28 Feb. 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

**"Forestry and Forest Typology Importance of Underbrush in the Oak  
Forests of the Northwestern Caucasus."** Sub 30 May 51, Inst of Forestry,  
Acad Sci USSR.

Dissertations presented for science and engineering degrees in  
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Mechanism of copper dissolution in hydrochloric acid. Trudy  
iz khim. i khim. tekhn. no. 1:32-35 '64.

Mechanism of silver dissolution in hydrochloric acid.  
ibid.:36-39

(MIRA 18:12)

1. Submitted September 23, 1963.

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

Author : Zvorykina, K. V.

Inst : Forestry Institute AS USSR

Title : Some Biological Peculiarities of the Field  
Maple (*Acer campestre* L.)

Orig Pub: Tr. In-ta lesa. AN SSSR, 1957, 33, 132-145

Abstract: These studies were conducted in the Borisogleb forest range (Tellerman Experimental Forest). Here maple enters the III stage where its height, depending on the conditions, reaches from 7 to 15 meters. It is distinguished by good development when it grows in oak groves. The possibility of maple propagation by cuttings or by the shoots on

Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

the stump under given tree growing conditions is noted. Depending on the advanced age of the tree stand, the character of maple growth and its role in the composition of the tree stand and in the composition of the young trees near a wood is determined by light conditions. The dominating position passes completely to the chief forest forming varieties and the field maple is driven back to the lower tier and to young trees on the edge of the woods where the number of its skeletal axis reaches 42 thousand per hectare. This process is connected with maintenance felling. Particularly after these fellings the number of shoots is increased. The presence of a large number of maple trees under a canopy (resulting in a flat crown, short life span, early arrest of

Card 2/3

13



Forest Biology and Typology.  
Abs Jour: Ref Zhur-Biol., No 10, 1958, 43910

K-2

the growth in height in the majority of skeletal axes) characterizes it as edge of the woods variety. However, under favorable conditions the growth of individual skeletal axes of the maple in the III and even II height level area may occur. The feasibility of the field maple being part of the wood-margin trees and the main height level area is emphasized. -- V. V. Protopopov

Card 3/3

Effect of tree and shrub species regenerated by sprouts on the  
development of oak stands. Trudy Inst. less 33:119-131 '57.  
(Reforestation) (Oak) (MIRA 10:10)

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Biological characteristics of the common maple (*Acer campestre* L.)  
Trudy Inst. lesa 33:132-145 '57.  
(Maple) (MIRA 10:10)

BIOLOGY: Plant ecology

I

✓ DAN 49-66-4/713-16

II Associated with Institute of Forestry

✓ DAN 49-66-4/713-16

III

IV \*Coauthor with I N Yelagin "Supplies of Litter in  
Certain Types of Broad-Leaf Forests of the Foothills of  
the Northwestern Caucasus"

✓ DAN 49-64-5/715-18

Coauthor with I N Yelagin "Illumination Under the Canopy of  
Certain Types of Broad-Leaf Forests (Northwest Caucasus)"

✓ DAN 49-66-4/713-16

Oak

"Differences in the development of vegetation in stands of early and late form of oak."  
Dokl. AN SSSR 83 no. 1, 1952

SO: Monthly List of Russian Accessions, Library of Congress, August 1951, Uncl.  
2

Association of early and late oak types with the relief elements.  
Izv. Vses. geog. ob-va 97 no.3:287-290 My-Je '65.

(MIRA 18:8)

Early spring aerial chemical spraying of shrubs. Zemledelie 27  
no.4:75-77 Ap '65. (MIRA 18:4)

1. Severnyy nauchno-issledovatel'skiy institut gidrotekhniki i  
melioratsii.

MLROFOL'SKAYA, Nina Konstantinovna; ZVORYKINA, L.N., red.

[Safety manual for operation of road machinery and equipment] Pamiatka po tekhnike bezopasnosti pri rabote na do-  
rozhno-stroitel'nykh mashinakh i mekhanizmax. Moskva,  
Stroiizdat, 1964. 32 p. (MIRA 17:8)



BOLCHAN, Nikolay Aleksandrovich, kand. tekhn. nauk; ZVORYKINA, L.N., red.

[Safety manual for operators of tower cranes] Pamiatka  
po tekhnike bezopasnosti dlia mashinista bashennogo kra-  
na. Izd. 2., perer. i ispr. Moskva, Stroiizdat, 1964.  
38 p. (MIRA 17:7)

GUSHCHIN, Vitaliy Ivanovich; ZVORYKINA, L.N., red.

[Safety manual for operators of equipment for churn drilling] Pamiatka po tekhnike bezopasnosti dlia mashinista stanka udarno-kanatnogo bureniia. Moskva, Stroiizdat, 1964.  
28 p.  
(MIRA 17:6)

BONDAR', Yevgeniy Petrovich, inzh.; ZVONYKINA, L.N., red.

[Safety manual for assembling reinforced concrete  
elements] Pamiatka po tekhnike bezopasnosti dlia  
montazhnika zhelezobetonnykh konstruktsii. Ind.2.  
ispr. i dop. Moskva, Stroizdat, 1964. 31 p.  
(MIRA 17:6)

KLOCHANOV, Petr Nikolayevich; EYDINOV, Yuriy Solomonovich;  
ODINOKOV, S.D., kand. tekhn. nauk, nauchn. red.;  
ZVORYKINA, L.N., red.

[Painting, glazing, and facing operations] Maliarnye,  
stekol'nye i oblitsovochnye raboty. Moskva, Stroiizdat,  
1964. 313 p. (MIRA 18:2)

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APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065720004-5"

[Safety manual for workers assembling mining equipment]  
Pamiatka po tekhnike bezopasnosti dlia rabochikh po  
montazhu gornorudnogo oborudovaniia. Moskva, Stroiz-  
dat, 1964. 29 p.  
(MIRA 17:9)

REYENOVICH, Arkadiy Il'ich; ZVORYKINA, L.N., red.

[Safety manual for the assembler of tower cranes  
construction] Pamiatka po tekhnike bezopasnosti dlia  
montazhnika stroitel'nykh bashennykh kranov. Izd.2.,  
perer. i dop. Moskva, Stroiizdat, 1964. 46 p.  
(MIRA 17:6)

Boloban, Nikolay Aleksandrovich; BELEVICH, Vladimir Borisovich;  
VELIKOTSKIY, Aleksandr Nikolayevich; MACHABELI, Shota  
Levanovich; RUFFEL', N.A., nauchn. red.; ZVORYKINA, L.N.,  
red.; MIKHEYEVA, A.A., tekhn. red.

[Assembling precast concrete structures] Montazh sbornykh  
zhelezobetonnykh konstruktsii. [By] N.A. Boloban. 1 dr.  
Moskva, Gosstroizdat, 1963. 344 p. (MIRA 16:10)  
(Precast concrete construction)

nauchn. red.; ZVORYKINA, L.N., red.; HOROVNEV, N.K.,  
tekhn. red.

[Preparation of formwork in industrial construction] Opa-  
lubochnye raboty v promyshlennom stroitel'stve. Moskva,  
Gosstroizdat, 1963. 311 p. (MIRA 16:11)  
(Concrete construction--Formwork)



KLIMOV, V.F.; PANICHEV, V.I.; RUBINCHIK, A.M.; EYLER, S.A.,  
nauchn. red.; ZVORYKINA, L.N., red.; BOROVNEV, N.K.,  
tekhn. red.

[Construction of cofferdams and caissons] Stroitel'stvo  
opusknykh kolodtsev i kessonov. Moskva, Gosstroizdat,  
1963. 247 p. (MIRA 17:1)

(Cofferdams) (Caissons)

A.A., tekhn. red.

ZVORIKINA, L.N., red.; MIKHEYEVA,

[Safety manual for blasters (in open areas)] Pamiatka po  
tekhnike bezopasnosti dlia vzryvnika (na otkrytykh rabotakh)  
Izd.w., perer.i dop. Moskva, Gosstroizdat, 1963. 29 p.  
(Blasting--Safety measures) (MIRA 16:9)

red. ~~Pylyaylovich~~, kand. med. nauk; ZVORYKINA, L.N.

[Industrial hygiene in a cement factory] Gigiena truda na  
tsementnom zavode. Moskva, Stroiizdat, 1964. 46 p.  
(MIRA 17:5)

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K.Ye., tekhn. red.

ZUCOVKINA, B.N., red.; TARKHOVA,

[Rigger-signalman's safety manual] Pamiatka po tekhnike  
bezopasnosti dlia takelazhnika-signal'shchika. Izd.2., ispr.  
i dop. Moskva, Gosstroizdat, 1963. 45 p. (MIRA 17:3)

[Safety manual for stoncutters] Pamiatka po tekhnike bez-  
opasnosti dlia rezchika kamnia. Moskva, Gosstroisdat,  
1963. 37 p. (MIRA 16:9)  
(Stone cutting—Safety measures)

One way to metallize Seignette's salt. Trudy LKI no.28:199-201  
'59. (MIRA 15:5)

1. Kafedra fiziki Leningradskogo korablestroitel'nogo instituta.  
(Rochelle salt) (Metal spraying)

SOURCE CODE: UR/0020/66/168/003/0564/0566

AUTHOR: Myasnikov, L. L.; Zvorykina, R. A.

ORG: Leningrad Shipbuilding Institute (Leningradskiy korablestroitel'nyy institut)

TITLE: Magnetoacoustic effect in aluminum alloys

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 564-566

TOPIC TAGS: aluminum alloy, magnetoacoustic effect, acoustic absorption, torsional vibration, acoustic resonance, solid solution, grain structure

ABSTRACT: To check on the hitherto uninvestigated increase of the phase velocity and increase of absorption of torsional sound waves in alloys, the authors prepared aluminum alloys with different contents of iron impurity - of the order of tenths and hundredths of one per cent. Plates of equal dimensions were tested (130 x 7.5 x 2 mm), fastened precisely at the vibration node, tuned to odd harmonics, and excited by resonance with torsional oscillations from X-cut Rochelle salt crystals. The resonance curve was plotted by producing beats from two sound generators with a constant frequency difference of 50 cps. When a constant magnetic field was applied, the resonant frequency was different from that without a field. The relative change of phase velocity was determined from the change in the resonant frequency, and the damping of the torsional oscillations was estimated from the relative logarithmic decrement of the oscillation with and without the field. The results show that the magnetoacoustic effect depends on the grain dimensions, density, chemical composition, and other fac-

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2  
tors which have not yet been investigated. (4) The magnetoacoustic effect was used to determine the limit of solubility of the solid solution during non-equilibrium dynamic solidification. The results obtained by the authors for the solubility of silicon in aluminum (0.48%) differed from the results published in the handbook, but was closer to the theoretical value. This report was presented by Academician B. P. Konstantinov 9 September 1965. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 11, 20/

SUBM DATE: 03 Sep 65/

ORIG REF: 003/

OTH REF: 001



Students' experiments on the use of antibiotics in poultry farming.  
Politekh. obuch. no.8:86 Ag '59. (MIRA 12:10)

1. Kuybyshevskiy oblastnoy institut usovershenstvovaniya uchiteley.  
(Poultry breeding) (Antibiotics)

arboxylic acid and its derivatives. IV,  $\beta$ -Amino-*o*-toluic acid. V. A. Zaryukina, Bull. acad. sci. U. S. S. R., *Chem. ser.*, 1963, 216-22 (English summary); cf. C. A. 58, 2710.  $-\text{CH}_3(\text{CO}_2\text{Et})$ , is better separated; cf. C. A. 58, 2710. Cond. HCl then by using alkali.  $\text{CH}_3(\text{CO}_2\text{H})$ , (I) and  $\text{MeCH}(\text{NH}_2)\text{OH}$  in ahrs. EtOH give a yellow oil which with acid-HCl gives 17% of the very hydroscopic  $\beta$ -aminobutyric acid (II), m. 100.5-10.5°. I, *n*-C<sub>10</sub>H<sub>19</sub>CHO and ahr. NH<sub>3</sub> give 30%  $\beta$ -aminobutyric acid (II), m. 206-0.5°. HCl ahr. m. 133.5-0.5°. By-products are 37% 3-norbornene, 7-oxo-1,7-butyrolactone and a neutral oil. II and EtCl give 84%  $\beta$ -benzamidopropionic acid (III), m. 129.5-31°. With  $\text{ClCO}_2\text{Et}$ , II forms 70% of the corresponding urethan (IV), m. 80°. II and KClO<sub>4</sub> give 70% of the  $\beta$ -ureido deriv. (V), m. 127-8°. When V is boiled 7,8-dioxo-2,3-dihydropyrimidine (VI), m. 180-7°, and hexyldihydropyrimidine. VI can be sepd. by crystn. from EtOH. III and  $\text{SOCl}_2$  at 70-80° give the acid chloride

which is treated with  $\text{NH}_3$  in Et<sub>2</sub>O to give 41% of the amide (VII) of III, m. 185-84, and 13% 2-phenyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (VIII); m. 74-8. Boiling VIII with  $\text{HCl}$  regenerates III, while boiling it with KOH gives running the reaction at 75-85°. Vacuum distn. of VII causes its decarbox. to a succinic acid whose amide is m. 123-7°. IV and SOCl<sub>2</sub> give an achi. chloride which with  $\text{NH}_3$  forms only the nitridal amide (IX), m. 168°. No (X) with SOCl<sub>2</sub> and  $\text{NH}_3$  at 75-85°. 2-phenyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (X), m. 120-31°, gives 2,4-diphenyl- $\alpha$ -acetabenzohydroprimidine (XI), m. 120-31°, so this reaction is probably general. Sapon. of XII gives the amide of X. The Hofmann reaction with VII gives  $\text{R}_2\text{COH}$ , 4-benzyl- $\alpha$ -acetabenzohydroprimidine (XI), m. 119-14°, and 1-benzyl-4-benzyl- $\alpha$ -acetabenzohydroprimidine (XII), m. 112-13°. Under the same conditions, IX gives XII and its urethan, m. 102-11°.

H. M. Lechter

H. M. Leichter

STOLNIKOVA, N.M.; DEVIATNIN, V.A.

Comparison of the iodate and indophenol tests for determining  
Ascorbic acid in industrial preparations. Trudy VNIVI 5:196-200  
'54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC ACID) (INDOPHENOL) (IODATES)

ZVORYKINA, V.B. [deceased]; STOL'NIKOVA, N.M.; Devyatnin, V.A.

A study of the reaction of furfurole with aniline and its use in making a qualitative evaluation of vitamin preparations. Trudy VNIVI 5:200-204 '54. (MLRA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC) (FURALDEHIDE) (ANILINE)

The electrolysis of aromatic carboxylic acids. VI. The electrolysis of opanic acid. V. M. Rodionov and V. K. Zor'ykina. *J. Gen. Chem.* (U. S. S. R.) 7, 2633 (1936) (in French 5630) (1937); cf. C. A., 31, 6116A<sup>2</sup>. It had been shown (C. A., 29, 7839) that electrolysis of opanic acid gives meconic (I) and a mixt. of  $\alpha$ - and  $\beta$ -lumeconyl. Na-Hg reduction gives I and some  $\alpha$ -bumeconyl. When a mixt. of  $\alpha$ - and  $\beta$ -lumeconyl is reduced with Na-Hg or by electrolysis, half the mixt. is unchanged, and 23-30% of meconylidimethoxybenzyl-o-carboxylic acid, m. 172-4°, is formed. Thus, bumeconyl is not an intermediate in the formation of I. H. M. L.

**Acylation reactions:** V. M. Rodionov and V. K.

Zvorykina. *Doklady Akad. Nauk S.S.S.R.* 37, 583-8 (1947); *Chem. Zentr.* (Russian Zone Ed.) 1948, II, 955. Attempts to prep. 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine by the action of  $\text{Ac}_2\text{O}$  on  $\beta$ -benzamidopelargonicamide yielded 3-methyl-4-hexyl-6-oxotetrahydropyrimidine,  $\text{C}_{11}\text{H}_{17}\text{N}_2\text{O}_2$  (I). Therefore

the action of  $\text{Ac}_2\text{O}$  on other acyl compds. was investigated. Boiling  $\text{BaNHPh}$  with  $\text{Ac}_2\text{O}$  and treating the reaction product with boiling water yielded *acelanilide*.  $\text{PhCH}_2\text{CONHPh}$  treated in like manner yielded  $\text{AcNHPh}$ . The following esters were prepd. by heating the corresponding *acylamidopelargonic acids* with alc. and  $\text{H}_2\text{SO}_4$ . Et  $\beta$ -*acetylamidopelargonic* (II), thin needles from petr. ether, m. 49-50°, bp 174-5°.  $\beta$ -Benzamido analog (III), fine needles from ether-petr. ether, m. 62°, bp 218-19°. Treating III with  $\text{Ac}_2\text{O}$  and proceeding as above yielded II.  $\beta$ -(*Phenylacetyl*)*amido*pelargonic acid (IV), obtained from the amino acid with  $\text{PhCH}_2\text{COCl}$  in 10% KOH at 0-5°, needles from ether-petr. ether or from aq. alc., m. 102-3°, readily sol. in  $\text{Et}_2\text{O}$ . Treatment of IV with  $\text{SOCl}_2$  at 40° and then with  $\text{NH}_3$  yielded the amide (V), needles from alc., m. 182°. Heating V with  $\text{Ac}_2\text{O}$  yielded I, m. 81°. M. G. Moura

**Syntheses in the pyrimidine series.** V. M. Rodionov and V. K. Zorykina. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1948, 330-40; cf. C.A. 38, 1473. — Conditions were established for the formation of amides and tetrahydropyrimidines by the interaction of acylated 2-amino acids and  $\text{SOCl}_2$ , followed by treatment with dry  $\text{NH}_3$ ; at 40-5° with the theoretical amt. of  $\text{SOCl}_2$ , good yields of amides are obtained; at 75-83° with excess  $\text{SOCl}_2$ , are obtained the tetrahydropyrimidines. The reaction appears to be general in character and is easiest with  $\text{H}_2\text{NCH}_2$  acids. Repts. on the cyclization of amides of acylated amino acids by hot  $\text{Ac}_2\text{O}$  showed that benzoylated aminopelargonic acid gives not a Ph deriv. of tetrahydropyrimidine, but a Me deriv., i.e. the  $\text{H}_2$  group is replaced by Ac; such transacetylation gives quant. yields of  $\text{AcNHCH}_2\text{Ph}$  from  $\text{H}_2\text{NCH}_2\text{Ph}$  and  $\text{PhOAc}$ .  $\beta$ -Aminopelargonic acid (10 g.) in 120 cc. 10%  $\text{NaOH}$  was treated dropwise with 10.1 cc.  $\text{Ac}_2\text{O}$  at 5-10°, let stand 1 hr., and acidified with  $\text{HCl}$  to Congo red, giving 75%  $\text{Ac}$  deriv., m. 101-2° (from  $\text{dH}_2\text{O}$ ). This (9 g.) with the theoretical amt. of  $\text{SOCl}_2$ , heated to 40-5°, the residual  $\text{SOCl}_2$  removed *in vacuo*, and the residue in benzene or  $\text{Et}_2\text{O}$  treated with dry  $\text{NH}_3$ , gave 81%  $\beta$ -acetamidopelarganamide, needles, m. 170°.

This (1.7 g.), boiled 3 hrs. with 10 cc.  $\text{Ac}_2\text{O}$ , the excess  $\text{Ac}_2\text{O}$  removed *in vacuo*, and the residue boiled 0.5 hr. with 25 cc.  $\text{H}_2\text{O}$  and cooled, gave 75% 2-methyl-4-hexyl-6-oxo-tetrahydropyrimidine (I), needles, m. 88° (from  $\text{EtOH}$ ); petr. ether, after washing with 5%  $\text{NaOH}$ ; hydrolysis of this by 5%  $\text{NaOH}$  gave  $\beta$ -acetamidopelargonic acid, m. 101°. Boiling 5 g.  $\beta$ -benzamidopelarganamide (II) 4 hrs. with 40 cc.  $\text{Ac}_2\text{O}$  and treatment as above gave 1.7 g.

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3 hrs. with 5 cc.  $\text{H}_2\text{O}$ , washed with cold dil.  $\text{NaOH}$ , and the  $\text{Et}_2\text{O}$  soln. of the residue washed with dil.  $\text{NaOH}$  and evapd., gave 0.83 g. pure (and 0.21 g. crude) 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine, m. 71° (from  $\text{Et}_2\text{O}$ , petr. ether). Refluxing 12.8 g. 3-carbethoxyindolopelarganamide 8 hrs. with 80 ml.  $\text{Ac}_2\text{O}$ , removal of the excess  $\text{Ac}_2\text{O}$ , boiling the residue 0.5 hr. with 75 ml.  $\text{H}_2\text{O}$ , and soln. in  $\text{Et}_2\text{O}$  gave 2.1 g. starting material and 2.5 g. corresponding acid (isol. in  $\text{Et}_2\text{O}$ ), while distn. of the  $\text{Et}_2\text{O}$  ext. gave 1.8 g. oil, b.p. 171-6°,  $n_D^{20}$  1.551,  $d_4^{20}$  0.98138, the latter (1.1 g.) boiled with 25 g. 50%  $\text{NaOH}$  gave 0.3 g.  $\beta$ -aminopelargonic acid (from  $\text{NaOH}$  soln. by faint acidification by  $\text{HCl}$ ) and 0.1 g. (1-aminomonanoyl)carbamoyl acid, m. 128° (by further acidification with  $\text{AcOH}$ ); this established the structure of the above-described oil as 1-acetyl-2-ethoxy-4-hexyl-6-oxotetrahydropyrimidine. The following derives were prepd. by the  $\text{SOCl}_2$ ,  $\text{NH}_3$  procedure as detailed above:  $\text{C}_6\text{H}_5\text{CH}_2\text{CH}(\text{NH}_2)\text{CH}_2\text{CO}_2\text{H}$  gave either 80%  $\text{C}_6\text{H}_5\text{CH}_2\text{CH}(\text{NHAc})\text{CH}_2\text{CONH}_2$  (80%), needles, m. 186° (from  $\text{EtOH}$ ), or 2-phenyl-4-hexyl-6-oxotetrahydropyrimidine (81%), needles, m. 71-5° (from dil.  $\text{EtOH}$ );  $\text{C}_6\text{H}_5\text{CH}(\text{NHAc})\text{CH}_2\text{CO}_2\text{H}$  gave only the amide, m. 172°;  $\text{C}_6\text{H}_5\text{CH}(\text{NHCO}_2\text{Ph})\text{CH}_2\text{CO}_2\text{H}$  also gave only the amide, m. 158° (from  $\text{MeOH}$ ), 82%,  $\text{PhCH}(\text{NH}_2)\text{CH}_2\text{CO}_2\text{H}$  gave either 95%  $\text{PhCH}(\text{NHAc})\text{CH}_2\text{CONH}_2$ , m. 240°, needles (from  $\text{EtOH}$ ), or 60% 2-phenyl-4-phenyl-6-oxotetrahydropyrimidine, needles, m. 135° (from  $\text{EtOH}$ ); the corresponding  $\text{Ac}$  compd. gave only the amide, m. 223° (from  $\text{EtOH}$ ), in 95% yield;  $\text{PhCH}(\text{NHCO}_2\text{Ph})\text{CH}_2\text{CO}_2\text{H}$  also gave only the amide (91%), needles, m. 103° (from  $\text{EtOH}$ );  $\text{MeCH}(\text{NH}_2)\text{CH}_2\text{CO}_2\text{H}$  gave either 60.7% amide, needles, m. 204-5° (from benzene), or 70.6% 2-phenyl-4-methyl-6-oxotetrahydropyrimidine, needles, m. 120-20.5° (from benzene). G. M. Kosolapoff

Chemical Tech. Inst. sub. B. M. Rodionov

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Transformation of amides of  $\beta$ -alkyl(aryl)- $\beta$ -carbethoxyaminopropionic acids into  $\beta$ -ureido acids. V. M. Rodionov and V. K. Zvyrykina. *Doklady Akad. Nauk S.S.S.R.* 65, 853-5 (1949).—Heating 2 g.  $\text{C}_6\text{H}_5\text{CH}(\text{NHCO}_2\text{Et})\text{CH}_2\text{CONH}_2$  with 25 ml. 5% KOH 1 hr. and acidification gave 80%  $\beta$ -ureidopropionic acid; if 0.5 g. of the amide and 5 ml. EtONa soln. in EtOH are let stand 3 days, diln. gives 0.2 g. unchanged amide, while acidification gives a little hexylidihydrouracil, with further acidification giving 0.16 g.  $\beta$ -ureidopropionic acid, m. 127-8°. Heating 1 g.  $\text{PhCH}(\text{NHCO}_2\text{Et})\text{CH}_2\text{CONH}_2$  with 20 ml. 5% NaOH 40 min. and acidification gave 80%  $\beta$ -phenyl- $\beta$ -ureidopropionic acid, m. 180-1°; this is formed also by boiling 4-phenyl-2,6-diketohexahydropyrimidine with 5% NaOH and acidification. 2-C<sub>6</sub>H<sub>5</sub>- $\text{CH}(\text{NH}_2)\text{CO}_2\text{H}$  treated in 15 ml. 10% KOH with 0.6 ml.  $\text{ClCO}_2\text{Et}$  gave the *N*-carbethoxy deriv., m. 147-8°, on acidification; heating 1.2 g. of this and 0.6 ml.  $\text{SOCl}_2$  3 hrs. at 40-5°, evapp. the  $\text{SOCl}_2$  and treating with  $\text{NH}_3$  in Et<sub>2</sub>O gave 90% of the corresponding amide, m. 224° (from EtOH), which (0.3 g.) warmed with 5% NaOH gave 0.21 g. (77%)  $\beta$ -ureido-2-naphthalenopropionic acid, m. 197° (decompn.), on acidification. G. M. K.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION STRIPED

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SELECTION

RECORDS AND



The Hofmann reaction III. Reaction of acylated amides of  $\beta$ -aminopropionic acid with alkaline hypobromites V. M. Rodionov and V. K. Zverevskii, Izv. Akad. Nauk S.S.R., *Udél. Khim.*, March 1950, page 26; *Ibid. Nauk S.S.R.*, *Udél. Khim.*, March 1950, page 26; C. A. 43, 2586. The Hofmann reaction through the formation of  $\beta$ -aminoacrylonitrile proceeds with acylation of acetylated 2-(acylamino)ethyl isocyanates and in a subsequent fraction yields substituted hydantons. Thus a route to  $\beta$ -amino acids is opened. The possible explanations of the results are discussed in the light of present-day knowledge. I. C. A. 17, 2165. Some work of Karst and Schlosser, C. A. 17, 2165. In treatment of 7 ml. H<sub>2</sub>O, 25-35 g. KOH, and 175 ml. H<sub>2</sub>O with 12.5 g. C<sub>12</sub>H<sub>17</sub>NHCOCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OH, and heating the solution on a steam bath to 55° (from 15%), and heating the solution on cooling and extr. with Et<sub>2</sub>O, aqueous heating to 65° gave 2-amidovalone (I), m. 82-83°, 1 g.; 3-glyoxybutyryl-4-hexyl-2-amidovalone (II), m. 147-148°, 3 g.; 3-acetylbutyryl-4-hexyl-2-amidovalone (III), m. 147-148°, 3 g. Hydrolysis of II with boiling 5% KOH gave 2-amidovalone (IV), decamp. 235-236°. Heating IV (0.3 g.) with 0.3 g. KCN in 6 ml. H<sub>2</sub>O gave an acylation product, while III heated at 107° (from 14%) gave 3-hydroxybutyryl-4-hexyl-2-amidovalone (V) with 0.81 ml. H<sub>2</sub>O in 20 ml. H<sub>2</sub>O, m. 147-148°, 3 g. If the original Hofmann reaction mixture was rapidly cooled after the temperature reaches 65° there are obtained 1.7 g. V, 3.0 g. I, 0.75 g. II, 4.0 g. neutral oil, and 3.7 g. liquid alkali, the latter were acid into 0.7 g. cyanhydrin, 0.01 g. III, 0.02 g. II, and traces of V; the neutral

oil yielded 1.24 g. V, (0.015 g. *p*-terbutoxyaniline) large acid, some HCN, and a solid, mp 121.2°, which is also obtained among the products of hydrolysis of I with aqueous KOH, and which is given the provisional formula,  $C_{10}H_{11}Cl$ .

[illegible]

Carbazide Acids  
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CIA-RDP86-00513R002065720004-5"

General method of obtaining B-semi-carbazide acids. Dokl. AN SSSR, 85, No. 3, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

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Phthalic acid and its transformations.

Redusov, V. K. / VOGYKUT, and L. R. Kuznetsov.

the USSR, 23: 1704, 1974.

EVERETT, V.K.

The work of Academician V.M. Rodionov in the field of -amino acids.  
Soob.o nauch.rab.chl.VKHO no.4:5-21 '54. (MIRA 10:10)  
(Amino acids)

RODIONOV, V.M. [deceased]

~~APPROVED FOR RELEASE: Thursday, September 26, 2002~~

Preparation and reactions of certain derivatives of  $\beta$ -ureidopelargonic acid. Izv.AN SSSR.Otd.khim.nauk no.3:332-335 Mr '56.

(MLRA 9:8)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Nonanoic acid)



USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur • Khimiya, No 2, 1957, 4405

Author : Rodionov, V.M., Zvorykina, V.K.

Title : Syntheses of Pyrimidine Series. II. Conversion of Diastereoisomeric Gamma-Ethyl-Beta-Aminocaprylic Acids to Substituted Tetra- and Hexahydropyrimidines.

Orig Pub : Zh, obshch. khimii, 1956, 26, No 4, 1165-1169

Abstract : Isomeric gamma-ethyl-beta-ureidocaprylic acids (Ia,b) are obtained from the two diastereoisomeric gamma-ethyl-beta-aminocaprylic acids (IIa,b) by three procedures: a) heating of II with KCNO; b) heating of amides of N-carbethoxy-derivatives of II with alkali; c) saponification of 4-(1'-ethylpentyl)-2,6-dioxohexahydropyrimidines (IIIa,b). By boiling with HCl (acid) I are converted to III. Action of SOCl<sub>2</sub> followed by NH<sub>3</sub> on N-benzoyl derivatives of IIa,b, gives 2-phenyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (IVa,b).

Card 1/3

USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

Heating of diastereoisomeric amides of gamma-ethyl-beta-(N-acetylamino)-caprylic acids (Va,b) with  $(CH_3CO)_2O$  gives 2-methyl-4-(1'-ethylpentyl)-6-oxotetrahydropyrimidines (VIa,b). - From 12 g N-carbethoxy-IIa (prepared in usual manner from IIa, yield 74%, MP 60-61° (from petroleum ether)) by heating with 5 ml  $SOCl_2$  at 40° for 3 hours, driving off excess  $SOCl_2$  in vacuum, adding 500 ml ether and saturating with  $NH_3$ , is obtained the amide of N-carbethoxy-IIa, yield 68%, MP 146° (from water). Analogously from N-carbethoxy-IIb (prepared from IIb, yield 70%, MP 63-64° (from alcohol-petroleum ether)), is prepared amide of N-carbethoxy-IIb, yield 70.6%, MP 144° (from water). 1 g of the amide thus obtained, in 20 ml 10% solution of NaOH, boiled until dissolved, acidified to get Ia, yield 86%, MP 142° (from water) or Ib, yield 0.85 g, MP 169° (from alcohol), respectively. On heating IIa,b with solution of  $KCNO$  the yield of I is 85 and 76%,

Card 2/3



USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4409

respectively. I boiled with 12% solution HCl, for 3 hours; yield of IIIa 67%, MP 152° (from water); yield of IIIb 80%, MP 145-146° (from water). 5 g N-benzoyl-II heated with 3.75 ml SOCl<sub>2</sub> at 75-80° for 3 hours, SOCl<sub>2</sub> driven off, added ether and saturated with NH<sub>3</sub>; yield of IVa 44.8%, MP 125° (from aqueous alcohol); yield of IVb 62%, MP 123° (from aqueous alcohol). To mixture of II and 10% solution NaOH added (CH<sub>3</sub>CO)<sub>2</sub>O; yield of N-acetyl-IIa 81-3%, MP 118° (from water); yield of N-acetyl-IIb 78.8%, MP 117° (from water). By action of SOCl<sub>2</sub> and NH<sub>3</sub> on the latter there are obtained Va, yield 89.3%, MP 195° (from alcohol), and Vb, yield 77.6%, MP 175° (from alcohol). Mixture of 1.5 g V and 30 ml (CH<sub>3</sub>CO)<sub>2</sub>O boiled 4 hours, (CH<sub>3</sub>CO)<sub>2</sub>O driven off; yield of VIa 76%, MP 92° (from aqueous alcohol); yield of VIb 70%, MP 86-87° (from ether).

Card 3/3

RODIONOV, Vladimir Mikhaylovich, akademik [deceased]; ZVORYKINA, V.K.,  
sostavitel'; KISELEVA, V.V., sostavitel'; FEDOROVA, A.M.,  
[translator]; KNUNYANTS, I.L., akademik, otv.red.; SHEMYAKIN, M.M.;  
akademik, otv.red.; SHVETSOV, Yu.B., red.isd.; POLENKOVA, T.P.,  
tekhn.red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR.  
1958. 792 p. (MIRA 12:2)

(Chemistry, Organic)

AUTHORS: Gol'dfarb, Ya. L., Zvorykina, V. K. SOV/62-58-6-15/37

TITLE: Investigation of the N-Oxides of Some Heterocyclic Bases  
(Izucheniye N-okisey nekotorykh geterotsiklicheskikh  
osnovaniy) Communication I. On the Production and Properties  
of Nicotine Oxides (Soobshcheniye 1:0 poluchenii i  
svoystvakh N-okisey nikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1958, Nr 6, pp. 748-755 (USSR)

ABSTRACT: Three types of oxides can be produced from nicotine:  
Pl-N-oxide, Py-N-oxide, Py,Pl-N-dioxide. Most papers on nicotine  
oxidation deal with the compounds of the first type. The  
authors begin by mentioning the papers by Finner and Wolfen-  
stein (Vol'fenshteyn) (Ref 1) Auerbach (Auerbakh) and  
Wolfenstein (Ref 2), Weil (Veyl') (Ref 4), Hains (Khayns) and  
Eisner (Eyzner) (Ref 5) and other authors. The present paper  
deals with the investigation of the reaction of the oxidation  
of nicotine  $H_2O_2$ , on which occasion all three N-oxides were  
obtained in form of crystals. Of these, nicotine-Pl-Py-dioxide  
and nicotine-Py-N-oxide have as yet not been described in

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Investigation of the N-Oxides of Some Heterocyclic  
Bases. Communication I. On the Production and  
Properties of Nicotine Oxides

SOV/62-58-6-15/37

published works. Pl-Py-dioxide was obtained as a crystal hydrate (with 2 water molecules and a water-free base), as monopicrate, dichlorohydrate, and mercury complex. For the Py-monoxide of nicotine a crystal base, dichlorohydrate, dipicrate, and a mercury derivative were obtained. For nicotine-Pl-N-oxide, which had already been obtained by Pinner (under the name of "Oxynicotine") the authors obtained a hitherto not described chlorohydrate; the water-free base was separated. There are 11 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy AS, USSR)

SUBMITTED: December 13, 1956

1. Nicotine oxides--Production
2. Nicotine oxides--Properties

AUTHORS: Zvorykina, V. K., Alashev, F. D., 62-58-6-29/37  
Gol'dfarb, Ya. L.

TITLE: The Production of N-Oxides of N-Methylanabasine (Polucheniye N-okisey N-metilanabazina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 788 - 790 (USSR)

ABSTRACT: Continuing the investigation of the N-oxides of bi-tertiary cyclic bases (Refs 1,2), the authors carried out the oxidation (by means of hydrogen peroxide) of N-methylanabasine. Bases of the N-oxides of N-methylanabasine which had hitherto not been described in published works, viz. N,N'-dioxide, Py-N-oxide, and Pi-N-oxide, as well as the picrates and hydrochlorides of these oxides were obtained. The structure of the N-oxides of N-methylanabasine was determined by reduction by means of zinc and hydrochloric acid in N-methylanabasine (and was identified as a di-picrate). There are 4 references, 2 of which are Soviet.

The Production of N-Oxides of N-Methylanabasine

SOV 62-58-6-29/37

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk  
SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy, AS USSR)

SUBMITTED: January 29, 1958

1. Nitrogen oxides--Production 2. Cyclic compounds--Oxidation

AUTHOR: Gol'dfarb, Ya. L., Zvervskaya, V. L. SOV/62-58-7-21/66

TITLE: The Production of the N-Oxides of  $\alpha$ - and  $\alpha'$ -Aminonicotine  
(Polucheniye N-okisey  $\alpha$ - i  $\alpha'$ -aminonikotina)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1958, Nr 7, pp. 900-903 (USSR)

ABSTRACT: In previous articles the authors described the N-oxides of  
nicotine (Ref 1) and N-methylanabasine. The investigations in  
the field of the nictines were continued by the description  
of the production of various N-oxides of the benzoyl- $\alpha'$ -amino-  
nicotine given in this paper. Furthermore (in the saponifica-  
tion of the latter by means of hydrochloric acid) they dealt  
with the production of the N-oxides of the corresponding  
 $\alpha'$ -aminonicotines. Analogous to the N-oxides of the  $\alpha$ -amino-  
and acyl amino piperidines (described by Adams and Miyano,  
Ref 5, Kartitskiy, Ref 6) Pl,Py-dioxides and Py-monoxide are  
amphoteric compounds which dissolve only in caustic alkali  
and mineral acids.

30V/62-58-7-11/26

• The Production of the N-Oxides of  $\alpha$ - and  $\alpha'$ -Aminonicotine

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii  
Nauk SSSR  
(Institute of Organic Chemistry named N. D. Zelinskiy, AS USSR)

SUBMITTED: February 28, - 1953

Card 1/1



AUTHORS: Zvorykina, V. K., Neyland, O. Ya. SOV/62-58-9-13/26

TITLE: Concerning Several **Conversion** Products of the Diastereo-  
isomers of  $\gamma$ -Ethyl- $\beta$ -N-Carbethoxyaminocaprylic Acid (O  
nekotorykh produktakh prevrashcheniya diastereoizomernykh  
 $\gamma$ -etil- $\beta$ -N-karbetoksiaminokaprilovykh kislot)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1958, Nr 9, pp 1099 - 1103 (USSR)

ABSTRACT: In the previous papers the authors reported the pre-  
paration of two diastereoisomers of  $\gamma$ -ethyl- $\beta$ -amino-  
caprylic acid, which were referred to as  $A_1$  and  $A_2$  in  
these papers. Also prepared were several derivatives and  
transformation products (Refs 1-3). In testing these  
compounds biologically it was found that several of  
them (especially isomer  $A_2$ ) had bacteriostatic properties.  
The authors were therefore interested in carrying out  
further, similar investigations to test the chemical and  
biological properties of these compounds. To do this,  
however, it was necessary that the molecular configurations  
be maintained and that substitution take place at the

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Concerning Several **Conversion** Products of the SOV/62-58-9-13/26  
Diastereoisomers of  $\gamma$ -Ethyl- $\beta$ -N-Carbethoxyaminocaprylic Acid

functional groups. Therefore the authors prepared diastereoisomers ( $A_1$  and  $A_2$ ) of  $\gamma$ -ethyl- $\beta$ -( $\omega$ -phenylureido) caprylic acid,  $\gamma$ -ethyl- $\beta$ -semicarbazidocaprylic acid, and 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine. For the synthesis of these compounds the reactions discovered by Rodionov and Zvorykina (Ref 4) were used. In addition to these reactions (in order to compare the yields) the isomers of these compounds were prepared by the method of Longfield and Stieglitz (Longfel'd and Shtiglits) (Ref 8), by reacting phenyl isocyanate with  $\gamma$ -ethyl- $\beta$ -aminocaprylic acid (Ref 3), and by the hydrolysis of 1-phenyl-4-(1-ethylpentyl)-2,6-dioxohexahydropyrimidine (Ref 4), respectively. There are 8 references, 7 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk  
SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED: February 2, 1957  
Card 2/2

GOL'DFARB, Ya.L.; ALASHEV, F.D.; ZVORYKINA, V.K. [deceased]

Preparation of anabasine Py-N-oxide. Izv. AN SSSR Ser. khim.  
no.12:2241-2242 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo  
AN SSSR.

GOL'DFARB, Ya. L.; ALASHEV, F. D.; ZVORYKINA, V. K.

Oxidation of anabasine by hydrogen peroxide. Izv. AN SSSR  
Otd. khim. nauk no.12:2209-2216 D '62.

(MIRA 16:1)

1. Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

(Anabasine) (Hydrogen peroxide)

Ultraviolet absorption spectra of some pyridine and nicotine derivatives. Report No.4: Absorption spectra of N-oxides of nicotine and N-methylanabasine. Izv.AN SSSR.Otd.khim.nauk (MIRA 13:7)  
no.6:1119-1123 J1 '60.

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.  
(Pyridine) (Piperidine)

MAYRANOVSKIY, S.G.; BARASHKOVA, N.V.; ALASHEV, P.D.; ZVORYKINA, V.K.

Polarographic study of N-oxides of anabasine and N-methylanabasine. Izv.AN SSSR Otd.khim.nauk no.5:938-940 My '60.  
(MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Anabasine)

21026, 26027.

1. Khimiko-analiticheskaya laboratoriya.  
(OILS AND FATS) (VITAMINS)

DEVYATNIN, V.A.; ZVORYKINA, V.V. [deceased]; STOL'NIKOVA, N.M.

Effect of moisture on the decomposition of vitamins C and B<sub>1</sub> in  
preparations. Trudy VNIVI 5:42-46 '54. (MLBA 9:3)

1. Khimiko-analiticheskaya laboratoriya.  
(ASCORBIC ACID) (THIAMINE)



**IOSIKOVA, V.M.; KRAVCHINA, L.N.; ZVORYKINA, Y.Y.**

**Study of the stability of vitamins in the polyvitaminic dragee.**  
**Trudy VNIIV 6:131-136 '59.** (MIRA 13:7)

**1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.**  
**Khimiko-analiticheskaya laboratoriya.**  
**(VITAMINS)**

1891 Comparison of results of determining ascorbic acid in industrial preparations by the iodate and triiodophenol methods. V. A. Ilyayev, N. V. Yur'eva and M. M. Kabanova. *Trudy Vsesoyuznogo Nauchnogo Issledovaniya Khimicheskogo Tsentra* 1954 1: 140-100. *Russian*. 10 refs.

1904 The error in the determination of the acid by the dihalophenolmethane method is 0.57 to 0.64 per cent and that by the iodate method is 0.04 to 0.19 per cent. The latter method is recommended for determination of ascorbic acid in and in tablets as well as in crystalline preparations. (S. Sauer)

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0552

Executive Order 12812, which states that the  
President may, in his discretion, suspend the  
operation of any law, executive order, or  
regulation, or any part thereof, which in his  
judgment is not in the public interest, or  
which is inconsistent with the national  
defense, or which is otherwise in the  
national interest.

Chemical analysis of vitamin B<sub>12</sub> in laboratory M.  
Fekova, V. I., Izyakina and L. N. Chirakova. Study  
of the effect of vitamin B<sub>12</sub> on the growth of the  
organism. *Vopr. Khim. i Med.* 4, 238-40  
1962. B. S. Levina.

Short-cut method for calculating the production norms of workers,  
and the coefficient of output and operative efficiency of the  
weaving equipment. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.3:  
3-14 '62. (MIRA 17:10)

1. Leningradskiy tekstil'nyy institut imeni Kirova.

**FRIDMAN, I., inzhener; ZVOZSKOV, B., inzhener.**

**An automatic truck tilter. Avt.transp. 33 no.3:33 Nr '55.  
(Motor trucks) (MLBA 8:5)**

IL'IN, M.I.; ZVOSKOVA, N.S., starshiy agronom; LEYN, Z.Ya.; ZVIAGINTSEVA, Ye.I.; MARINICH, P.Ye., red.; ZABORSKIY, N.I., red.; PECHENKIN, I.V., tekhn. red.

[New corn hybrids Bukovine 3 and Bukovina 2; results of stale crop variety tests] Novye gibridy kukuruzy Bukovinskii 3 i Bukovinskii 2; rezul'taty gosudarstvennogo sortoispytaniia. Moskva, Izd-vo M-va sel'. khoz. SSSR, 1960. 45 p. (MIRA 14:8)

1. Russia(1923- U.S.S.R.) Gosudarstvennaya komissiya po sortoispytaniyu sel'skokhozyaystvennykh kul'tur. 2. Zaveduyushchaya khimicheskoy laboratoriyey Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Leyn). 3. Zamestitel' predsedatelya Gosudarstvennoy komissii po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Marinich).

(Corn (Maize)—Varieties)



ZVOSKOVA, H.S.; LAPPO, A.A.

Survey of the achievements of master corn growers. Zemledelie 6 no.12:  
37-41 D '58. (MIRA 11:12)

(Corn (Maize))

ZVOSKOVA, N.S.

Examples of displays from the corn exhibit. Zemledelie 6 no.3:95  
Mr '58. (MIRA 11:4)

(Corn (Maize))

ZVUKOV, N. M., inzh.

Tracks in Czechoslovakian open-pit mines. Ugol' 38 no. 4:56-57  
Ap '63. (MIRA 16:4)

(Czechoslovakia—Mine railroads—Track)

ZVUKOV, N.M., inzh.

Railroad tracks in the metallurgical and machinery plants of  
Czechoslovakia. Zhel.dor.transp. 44 no.8:88-93 Ag '62.  
(MIRA 15:8)  
(Czechoslovakia--Industrial railroads)

ZAKATALOV, Ye.V., inzh.; BELYKH, K.D., inzh.; ZVUKOV, N.M., inzh.;  
SKVORTSOV, O.S., inzh.; NETUSOV, V.P., inzh.; AL'BREKHT, V.G.,  
doktor tekhn. nauk, prof., red.; PETROVA, V.L., red.;  
USENKO, L.A., tekhn. red.

[Mechanization of the repair and maintenance of normal and  
narrowgauge railroad tracks of industrial enterprises]  
Mekhanizatsiia remonta i soderzhaniiia zhelezodorozhnykh putei  
normal'noi i uzkoj kolei promyshlennykh prepriatii. Moskva,  
Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia,  
1962. 63 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii  
institut zhelezodorozhnogo transporta. Trudy, no.225).  
(MIRA 15:5)

1. Nachal'nik sluzhby puti zavoda chernoy metallurg im.  
Dzerzhinskogo (for Belykh).  
(Railroads, Industrial--Maintenance and repair)

KOTEL'NIKOVA, A.V.; ZVYAGIL'SKAYA, R.A.

Adenosinetriphosphatase activity in mitochondria of *Endomyces magnusii* yeasts. *Biokhimiia* 29 no.4:662-672 J1-Ag '64.  
(MIRA 18:6)

1. Institut biokhimiia imeni Bakha AN SSSR, Moskva.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Study of the oxidation of different substrates and coupled phosphorylation in subcellular preparations from *Endomyces magnusii* yeasts. Biokhimiia 29 no. 1:65-70 Ja-F '64.  
(MIRA 18:12)

1. Institut biokhimiim imeni A.N. Bakha AN SSSR, Moskva.  
Submitted April 12, 1963.

ZVYAGIL'SKAYA, R.A.; KOTEL'NIKOVA, A.V.

Effectiveness of oxidative phosphorylation in yeast mitochondria.  
Dokl. AN SSSR 164 no.2:448-450 S '65. (MIRA 18:9)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Submitted  
October 28, 1964.